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The Inland SEED COMPANY

SPOKANE, WASH.



STRINGLESS
GREEN
POD.

KENTUCKY WONDER
WAX POD

STRINGLESS
GREEN
POD.

1918 ANNUAL 1918

The Inland Seed Co.

Wishes all a happy and prosperous new year. May the year 1918 bring to all our friends enough of joy and sorrow, enough prosperity and adversity, enough encouragements and disappointments, enough of the good and the ill to broaden character, to make us more sympathetic and helpful to one another, and to give us a higher and clearer view of life and its possibilities.

The War

Has decreased the seed supply to a very great extent.

The War

Has correspondingly increased the price of seeds.

We Recommend

Early purchasing of your entire requirements.

Our Stock

Has always been and is of the highest quality.

Our Motto

The best none too good. "Quality" our watchword.

Your Order

Take time and have it correct. Allow postage where necessary; also freight or express charges if forwarded to a station without an agent. All C. O. D. orders must be accompanied with part cash. Plants or roots not sent C. O. D.

Glassware sent only at purchaser's risk. On all orders include cost of insurance with your remittance if you want order insured; otherwise sent at purchaser's risk.

Prices in catalogue not guaranteed. If you want a large order, write for prices, stating amount of each variety wanted.

The Inland Seed Co.

SPOKANE, WASHINGTON

The Inland Seed Company's

1918 Seed Catalogue 1918

The growing season of 1917 has been very unfavorable for the production of seeds, hence there is a general shortage on nearly all varieties of vegetable seeds. The late wet spring finally gave place to a dry summer and prolonged drouth, and as a result, a great many of the crops failed to produce even the amount of seeds required in their planting. Under our own supervision we grew a much larger acreage this year than we have ever done before, and had likewise a much larger amount of seeds contracted for, from other reliable growers in this country as well as in England and Europe, and yet at this date, December 1, 1917, we have only received part of our seeds and have been unable to ascertain positively the quantity we will receive, hence it makes our supply as well as our deliveries uncertain.

We want it distinctly understood that prices quoted on seeds and all other items in this catalogue may or may not be maintained during the year 1918, and when we are forced to deviate from quotations made, we will either notify the party sending us the order or forward the full value for money received at prices prevailing on date order is received. As our custom and practice in the past has been the best seeds at any cost, we are not deviating from this principle now, though it is almost impossible to secure sufficient stock of high grade seeds such as we handle.

The prices quoted in this catalogue are the very lowest that we can consistently sell at for the high grade seeds we handle. Owing to unusual conditions in the growing and curing seasons, a great many seeds this year will be of lower germination than usual, especially will this be true, we think, of corn and onions. We therefore advise thick sowing and planting.

ARTICHOKE TUBERS

Planted and cultivated the same as potatoes. Of great value for feeding stock. They are the best hog feed known. They are remarkable for their fattening properties, and great productiveness. One lb., postpaid, 15c; at purchasers expense, 50 lbs., \$1.25; 100 lbs., \$2.50.

ASPARAGUS SEED



CULTURE—Sow in early spring in rows; when one year old the roots may be taken up and transplanted in permanent beds, which should be made by taking out the soil to a depth of about 16 inches, fill in with six inches of well rotted stable manure, then 6 inches of soil, somewhat firmed, and place the roots on the same about 10 inches apart with the roots well spread out and cover

so that the crown will be about 4 inches below the surface.

PALMETTO—This variety is very desirable on account of its earliness, bright green color, presenting an attractive appearance, excellent flavor and productiveness.

CONOVER'S COLOSSAL—A standard sort; quality first class, spreads less than other sorts. Both varieties: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00.

Beans

It is a fact worth emphasizing that in order to secure the best results from seeds that

the seeds themselves should be fully matured, well developed, of good germination, and capable of strong, vigorous growth. In order to secure these very essential and necessary qualities, we are having our wax and green podded bush varieties grown in Washington and Idaho, in localities especially suited to their growth and culture, by men who thoroughly understand the preparation of the ground, cultivation and harvesting of the crop.

This insures to us seed of the very best type and of the highest quality.

Beans have been a very short crop, in fact, only about one-fourth. We have a good supply of Black Wax and Kentucky Wonder Wax, and only a fair supply of other varieties.

CULTURE—Beans should not be planted until the ground is warm, as cold and wet weather will cause the seed to rot. For garden culture plant four or five seeds in hills one foot apart, in rows 18 inches apart. For field culture, make the rows 3 or 3½ feet apart, and cover with two inches mellow soil.

Bush, Wax Podded

BLACK WAX, PROLIFIC—This improved strain of Black Wax we offer under this name is exceptionally productive, very hardy, reliable and of the best quality. It is very extensively used for snaps for the home garden and market. The plants are medium sized, erect in growth, with small foliage, very vigorous, early intermediate in season with longer bearing period than most sorts. The pods are of medium length, four and one-fourth to four and one-half inches, borne well up from the ground, curved, cylindrical and fleshy. They are of a clear, light golden yellow color and remain a long time in condition for use as snaps. Seed small, oblong, jet black.

DAVIS WAX—This is also called White Kidney Wax. It is a well known market sort, much used for shipping. The plants are very hardy and productive and the variety is very desirable

THE SPOKESMAN-REVIEW.

AUDIT NO. A-408

SPOKANE, WASH. Sept. 10, 1917.

CHECK NO. 7822

THE OLD NATIONAL BANK, SPOKANE, WASH. 28-3

Pay FIFTY# ----- Dollars \$ 50.00

TO THE ORDER OF PAYEE BEL WHEN PROPERLY ENDORSED

MRS. A. J. KING

THE SPOKESMAN-REVIEW

By *W. H. Howley* PUBLISHER.

J. G. Haly ACCOUNTANT

DETACH STATEMENT BELOW BEFORE DEPOSITING CHECK



From the many expressions of appreciation concerning the seeds and plants of The Inland Seed Co., we select the following letter from Mr. and Mrs. A. J. King, who have won four different prizes during the season of 1917; one offered by the City Beautiful Committee of the Spokane Ad Club; one by J. W. Graham & Co.; a \$50.00 cash prize offered by the Spokesman-Review; also the Twohy cup. (The Twohy cup must be won three years in succession before it can be permanently held. This cup was offered last year for the first time.) The cuts above show three prizes won by the Kings. Inland Seed Co., Spokane, Wash.

Gentlemen: It is a pleasure to say that we have the highest praise for the seeds and plants put out by The Inland Seed Co.

We have used these exclusively in our seeding and planting, and attribute the success of our garden and lawn to the fact that The Inland Seed Co. grow most of its products, in this territory, and they are thoroughly tested and acclimated.

We have no hesitation in recommending this company to any who are interested in securing the best results with a fair outlay of effort.

(Signed)

A. J. KING.



Views of the garden of Mr. and Mrs. A. J. King. This garden won every first prize offered for the best Spokane Garden.

Our seeds and plants have proved their dependability.

INLAND SEED CO.

BEANS—Continued

where a handsome wax-podded, white seeded intermediate sort is wanted. The plants are very vigorous. The pods are remarkably long, about 6 inches, sometimes longer. They are handsome, light yellow, straight, very attractive and when young are crisp and tender. The dry beans are excellent for baking. Seed medium large, kidney shaped, clear white.

GOLDEN WAX IMPROVED—This is one of the earliest and best dwarf sorts for the home market and private gardens. The plants are erect, compact, and very pro-



Golden Wax

ductive. The pods are of medium length, four and one-half to five inches, nearly straight, broad, flat, golden yellow, very fleshy and wax-like. Seed medium sized, oval, white, more or less covered with two shades of purplish red. The amount and shade of color on this and all parti-colored beans will be affected greatly by conditions of soil and ripening.

WARDELL'S KIDNEY WAX—This standard variety maturing a little later than Golden Wax, yields a large crop of long, nearly straight, broad, light golden yellow, handsome pods. These are of large size, about six inches long, and are of good quality. They always command a ready sale, making the variety one of the most profitable for the market gardener as well as shipper. This is also very extensively used for snaps for the home garden. The plants are strong growing and bear their long pods well up from the ground. The leaves are large, broad and slightly roughened. Seed large, flattened, kidney shaped, white with dark markings about the eye.

All varieties of wax beans, 40c lb., postpaid; at purchasers expense, 10 lbs., \$3.00; 25 lbs., \$7; 50 lbs., \$13.00; 100 lbs., \$25.00.

Bush, Green Podded

LONG YELLOW SIX WEEKS—The plants of this hardy variety are large, vigorous, erect and very productive. The leaves are large. The pods are long, about six inches, straight, flat, handsome, rather light green and when young are of good quality for snaps. Seed medium sized, long, kidney shaped, light yellow with small brownish circle about the eye. This is early maturing and a fine shipper. It is much used for the home garden and market.

RED VALENTINE, EXTRA EARLY—The plants are of medium size, erect, with dark green leaves. The pods are of medium length, about four and one-half inches, medium green color, curved, cylindrical, with crease in back, very fleshy, crisp and tender. Where the young plants have to contend with adverse conditions no other dwarf bean is more certain than the Valentines are to set pods. Seed long, of medium size and unsymmetrical in shape, purplish pink splashed with pale buff; round podded.

Long Yellow Six Weeks, or Red Valentine, 1 lb., 35c, postpaid; at purchasers expense, 10 lbs., \$2.50; 25 lbs., \$6.00; 50 lbs., \$11.50; 100 lbs., \$22.50.

REFUGEE, EXTRA EARLY—A very early, green-podded variety, with medium-sized, green, fleshy pods; seed drab, freely spotted with dark purple. The vines are smaller and of more upright growth, and leaves a little larger than the late Refugee. The pods are round and make an attractive appearance when shipped to market. Their color is lighter than most of the green beans. Lb., 40c, postpaid. At purchasers expense, 10 lbs., \$3.00.

STRINGLESS—A very desirable dwarf green podded snap sort for the home garden and largely grown for the market. The plants are large, spreading and productive. The pods are medium green, five to six inches long, cylindrical, larger than those of Red Valentine but are quite as fleshy, of equally high quality and remain crisp and tender long. They mature a little later. Seed of medium size and length, yellowish brown. Lb., 40c, postpaid; at purchasers expense, 10 lbs., \$3.00; 25 lbs., \$7.00; 50 lbs., \$13.00; 100 lbs., \$25.00.

Pole, Green Podded

DUTCH CASE KNIFE—The vines of this well-known green podded kidney bean for green shell use are of good climbing habit, but twining rather loosely and may be used for a corn hill sort of medium season. It is used for snaps when quite young. The leaves are large and crumpled. The pods are very long, seven to eight inches, flat, irregular, medium green, becoming lighter as they mature. Seed broad, kidney shaped, flat, clear white and of excellent quality whether used green or dry.

KENTUCKY WONDER—Also known as Old Homestead. We believe this variety is the most practically useful of the green podded pole beans suitable for use as snaps. It is an early, very prolific sort, with showy pods which are of most excellent quality. The vines are vigorous, climbing well and very productive, bearing pods in large clusters. The pods are medium light green, very long, often reaching nine or ten inches, curved and twisted, nearly round and very crisp when young, becoming very irregular and spongy as the beans ripen. Seed long, oval, slightly flattened, dun colored. One of the very best early pole snap beans for the home garden or market.

LAZY WIFE—The pods are produced in large clusters in great abundance and are from four to five inches in length. Dark green, rather flat but broad, quite thick, fleshy, and entirely stringless, retaining their brittleness until fully developed; of unusually rich flavor.

LONDON HORTICULTURAL OR SPECKLED CRANBERRY—One of the best of the Horticultural varieties as a general purpose late green shell bean for home or market. The vines are moderately vigorous with large, light colored leaves. The pods are medium length, four and one-half to five and one-half inches, pale green when young, becoming as they mature yellowish green striped or splashed with red. The beans are large, flesh colored, splashed and spotted with wine-red and of the highest quality, either green or dry. This well-

BEETS—Continued

known horticultural pole bean is sold also as Wren's Egg. Pole beans not otherwise quoted, 1 lb., 35c, postpaid; 10 lbs., at purchasers expense, \$2.50.

Pole, Wax Podded

KENTUCKY WONDER—Yellow podded, bears a large quantity of rich, golden-yellow pods from the time the plant is about half-grown until it is killed by frost in the fall. The plant makes a quick, healthy growth, and, like the "Kentucky Wonder," it is exceedingly productive, bearing large pods, which are thick, meaty, stringless; very tender, and have a fine flavor when cooked. This variety is bound to gain in favor, both for the home garden and for market. 1 lb., 40c, postpaid; at purchasers expense, 10 lbs., \$3.00.

Shell

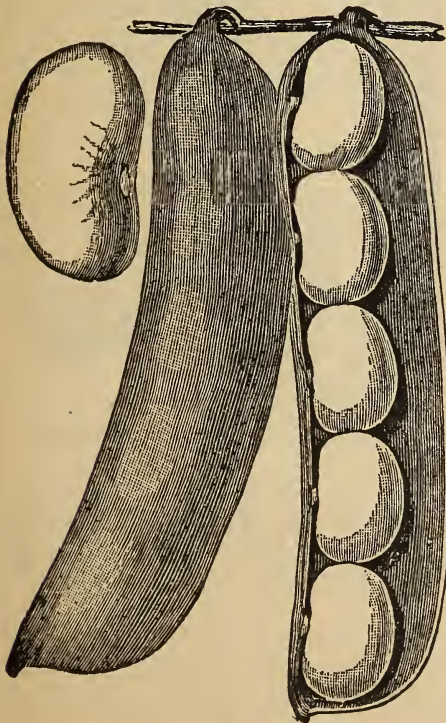
BROAD WINDSOR—Stock erect, strong and shrubby. The bean is large, broad and flat. 1 lb., 35c, postpaid; at purchaser's expense, 10 lbs., \$2.00.

Ornamental

SCARLET RUNNER—Ornamental and useful. The vine is graceful, flowers are of a brilliant scarlet, and the beans are of an excellent quality, either when shelled or in a dry state. 1 lb., 40c, postpaid; at purchasers expense, 10 lbs., \$2.75; add postage.

Field

NAVY—Write for prices, stating quantity wanted.

Limas, Bush**Burpee's**

BURPEE'S—It grows vigorously to a height of 18 to 20 inches, forming a circular bush 2 or 2½ feet in diameter, yielding from 50 to 150 fine pods.

HENDERSON'S—Is very compact, bush form, from 15 to 18 inches high, and produces enormous crops of delicious, well-flavored beans.

Both varieties, 1 lb., 40c, postpaid; at purchaser's expense, 10 lbs., \$3.00.

Limas, Pole

EARLY JERSEY—This variety is one of the earliest of the pole Limas. Pods are four inches in length and contain three and four large beans each. It is specially recommended for this northern latitude as it gives much better results than can be obtained from any of the other varieties, on account of its earliness and productiveness. 1 lb., 40c, postpaid; at purchaser's expense, 10 lbs., \$2.50.

Beets

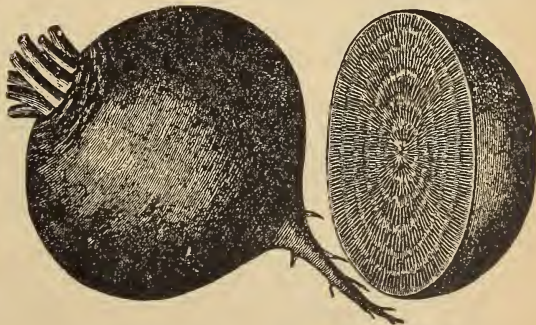
CULTURE—The soil should be deep, rich and mellow, plowed deep and harrowed until very fine. Drop about one inch deep in drills 12 to 18 inches apart, and when well up thin to four or six inches. The tops of the young beets can be used for greens.

Owing to crop failure we are very short on Early Egyptian, but have a fair supply of the other varieties.

BLOOD TURNIP, EARLY—(Improved)—An extra selected stock of Blood Turnip. The roots are dark red and nearly round or slightly flattened. The flesh is deep red, zoned with lighter shade, sweet, crisp and tender. This is an excellent market and home garden sort for summer and autumn use.

DETROIT DARK RED—We believe this is the best beet for the market and home garden, and on account of its uniformly deep rich color the most desirable for canning. The tops are small and upright in growth. The leaves are dark green, shaded with red. The roots are medium sized, globular or nearly round, very smooth and of dark blood red color. The flesh is deep vermilion red, zoned with a lighter shade of the same color. The variety is very desirable for bunching. Careful comparisons with all prominent varieties on the market prove that Detroit Dark Red is the most uniform in shape and size and the most attractive in color. It is unsurpassed in quality.

ECLIPSE EARLY—An early beet especially desirable for the home garden and used for bunching. The tops are small. The roots are bright deep red, smooth, round or slightly top shaped, with a small tap and small collar. The flesh is bright red, zoned with pinkish white, very sweet, crisp and tender, especially when young.

**Detroit Dark Red.**

BEETS—Continued

EGYPTIAN EXTRA EARLY—This is the best variety for forcing. It is also excellent for first early crop outdoors, being very early, with small tops. The leaves are dark green, shaded and veined with dark red. The roots are very dark red, moderately thick, a little rounded on top, distinctly flat on the bottom, and about two inches in diameter when mature. The flesh is dark purplish red, zoned lighter shade; firm, crisp and tender.

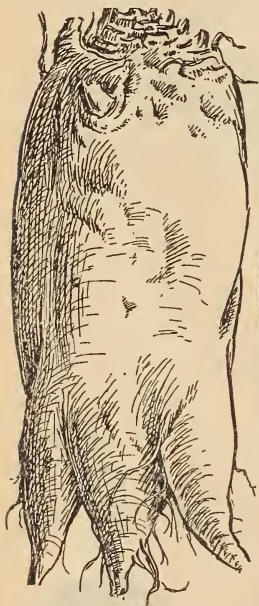
All the different varieties of beets unless otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 45c; ½ lb., 80c; 1 lb., \$1.50, postpaid. At purchasers expense, 1 lb., \$1.40; 5 lbs., \$6.75; 10 lbs., \$12.50.

SWISS CHARD OR SEA KALE—This variety does not produce an edible root like the regular garden beet, but is highly esteemed for the broad, white leaf stalks and midribs, which are cooked and served in the same manner as asparagus, making a most delicious vegetable. The leaves are also coked like spinach. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 45c; ½ lb., 85c; 1 lb., \$1.50.

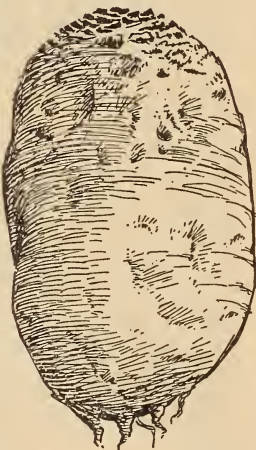


Early Blood Turnip

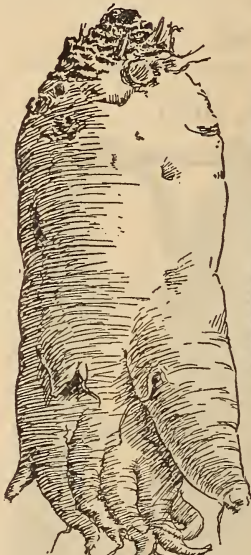
MANGEL WURTZELS



Mammoth Long Red



Golden Tankard



"Sludstrup"



"Eckendorf"

The great importance of growing Mangel Wurtzel and Sugar Beets for stock feeding is becoming more and more apparent to the progressive farmer, on account of their immense yield, and their fine feeding qualities. In order to secure seed from the very best types, we are contracting with European growers that are looked upon by their competitors as real experts. This seed costs us more than seed from the ordinary strains grown by ordinary growers, but we have always believed that quality is of more importance than price, and judging from the increases in our sales each year, we are convinced that the farmers are recognizing and appreciating the high quality of these seeds.

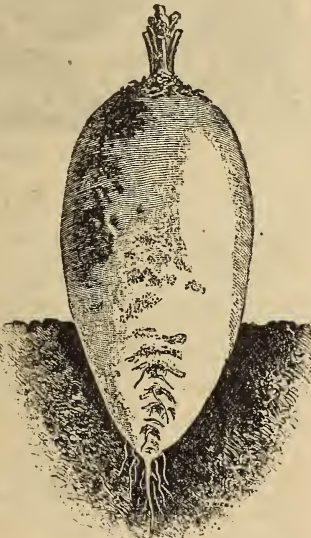
We had our contract placed with one of the best growers in Denmark for our Mangel Wurtzels and Sugar Beets. Owing to the unfavorable season there was less than half a crop realized, consequently the Danish government put an embargo on these, and would not allow any to be exported until their home requirements were fully filled. We next secured some in England, but the British government would only permit our shipper to export fifty per cent of the amount we had ordered of Mammoth Long Red, and as a result, our stock is limited on some varieties. Order early.

BEETS—Continued

All varieties of Mangel Wurtzel and Sugar Beets: Oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 70c; lb., \$1.25, postpaid. At purchaser's expense, lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

DANISH SLUDSTRUP—The Danish Government encourages the growing of root crops by offering certificates of merit to growers who select and produce sorts which are of distinctive value. Sludstrup is considered the best of all mangels, having been awarded first class certificate. In color it is reddish-yellow and of a distinct type. It contains the largest per cent of nutriment found in any sort. It is very hardy, grows well above ground and is easily pulled.

*The best
proofs
of the
high
quality
of our
seeds,
are
increased
demand
and ad-
ditional
customers*



Giant Half Sugar

GIANT HALF SUGAR—Is very much more valuable for feeding purposes than the old sorts, it being very much richer. In addition to this, the size and form have been improved until it yields as much per acre as the best mangels, and twice as much per acre as the rich sugar beet seed; is much easier handled, keeps better and is in every way most valuable to the farmer. Roots large, oval in form, very smooth, with few rootlets; tops small, flesh white.

GIANT RED ECKENDORF—A very popular variety. The roots are smooth, long and cylindrical in shape, very much like the tankard mangels. They are very heavy, weighing up to 15 and 20 pounds each. The flesh is firm, crisp and solid, white in color and of high feeding value. This variety is easily harvested, a large proportion growing above ground.

GOLDEN TANKARD (Improved)—A special feature is the rich, deep yellow color of the flesh, differing in this respect from other Mangels, surpassing them in milk-producing qualities. The roots are of large diameter, tapering quickly at the bottom, which is quite broad, with only a small tap-root. It grows largely above the soil and is easily harvested. It yields an enormous bulk on good land, and can be grown closely in rows.

MAMMOTH LONG RED—This is the heaviest cropping and largest of all mangels. The roots grow from one-half to two-thirds above the surface and are frequently two or more feet in

length by six inches in diameter. Dark, richly colored foliage, skin bright dark red; flesh white with veined rings of rose-pink.

KLEIN WAUZLEBEN—This variety has proved to be a very valuable sort, on account of its richness in saccharine matter, thus demonstrating its superiority for feeding purposes. Roots rather long, slender growing into the ground. A great yielder.

All varieties of Mangel Wurtzel and Sugar Beets: Oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 70c; 1 lb., \$1.25, postpaid. At purchaser's expense, 1 lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

BRUSSELS SPROUTS

BRUSSELS
SPROUTS

Cultivated for the small heads that grow in considerable numbers from the main stem. It is a delicacy much esteemed by some. Sow in seed bed middle of spring and transplant and manage as winter cabbage. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c.

Cabbage

Cabbage is recognized as a crop that usually can be depended upon for good returns. The cost of seed per acre is very small, but the quality of seed you obtain is all important. Do not sacrifice quality. Obtain the best. Our seed is secured from the most reliable growers, gives best results, and better satisfaction than the ordinary strain of cabbage.

We want to call special attention to four varieties:

CLOVER LEAF COPENHAGEN MARKET.

CLOVER LEAF DANISH SUMMER BALL HEAD.

CLOVER LEAF DANISH BALL HEAD.

CLOVER LEAF ROUND HEAD.

In the cabbage family these four varieties are specially recommended, and we take just pride in the perfection of the types we have secured, and have full confidence that they will prove to our customers all we have claimed them to be.

CULTURE—For early cabbages sow the seed in a hot-bed in March or April, covering the seed from ¼ to ½ an inch deep and, when big enough, transplant to another bed. As soon as the ground is in good condition transplant, outside, in rows 2 feet apart and 15 to 20 inches in the row.

CABBAGE—Continued

A great quantity of cabbage seed has always been imported from Europe, and as this source of supply has been entirely cut off, the natural result follows, namely, a general shortage with prices more than double that of former years.

First Early

CHARLESTON, OR LARGE WAKEFIELD—Large solid heads, of good quality, a few days later than Early Jersey Wakefield; especially recommended for institutions and market gardeners, producing fully twice as much per acre as the early variety. It combines all the good qualities of an early long-keeping cabbage. Pkt., 6c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.85; 1 lb., \$3.50.



Copenhagen Market

CLOVER LEAF COPENHAGEN MARKET—This superb new cabbage is undoubtedly without a rival as the finest large round-headed early cabbage in cultivation. The type is thoroughly fixed, the heads maturing all at the same time (this being a great consideration to market gardeners, entailing less labor in harvesting the crop, and allowing the ground to be cleared at the first cutting). The heads average about 10 pounds each in weight, are very solid, with small core and of fine quality. It matures as early as Charleston Wakefield, and will give a much heavier yield per acre than that popular variety. The plant is short-stemmed, the heads being produced almost on the ground level. The leaves are light green, rather small, saucer-shaped, and always tightly folded. The plants, therefore, can be set closer than is usual with varieties of similar size. Are grown for us in Denmark under special contract. Pkt., 10c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.50; ½ lb., \$2.60; 1 lb., \$5.00.

EARLY JERSEY WAKEFIELD—The earliest and hardest heading of extra early cabbages. Most gardeners depend upon it for the bulk of their extra early crop. Heads conical, very compact, solid and of excellent quality. The thick, stout leaves and compact habit make it the best sort for very early setting. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.85; 1 lb., \$3.50.



Early Jersey Wakefield

Second Early

ALL HEAD EARLY—This excellent second early market sort produces heads that are very large for so early a cabbage and of very good quality. It is desirable not only for general spring planting but by planting late it can be used as a fall and early winter cabbage. The variety is well adapted for kraut. The plants are compact, with few outer leaves which are comparatively smooth and rather thick. The stem is short. The heads are solid and flat but very deep. Pkt., 5c; oz., 40c; 2 oz., 75c; ¼ lb., \$1.25; ½ lb., \$2.15; 1 lb., \$4.00.

ALL SEASONS—The heads are extremely hard and solid, round, flattened on top. It is called "All Seasons" because it is as good for autumn or winter as for early summer. The plants are very vigorous and sure heading, with few outer leaves which are large and fairly smooth or slightly waved. It is remarkable for its ability to stand the hot sun and dry weather, remaining an exceptionally long time in condition for use. Sometimes sold as Vandergaw. Pkt., 5c; oz., 40c; 2 oz., 75c; ¼ lb., \$1.25; ½ lb., \$2.15; 1 lb., \$4.00.

CLOVER LEAF DANISH SUMMER BALL HEAD—The Danish Summer Ball Head Cabbage is taking the place among the early varieties that the Danish Ball Head holds among the later sorts. It is a second early, extremely hard, long-keeping and of superb quality. It resembles the Winter Ball Head quite closely, excepting that it is smaller and slightly flat on top. It has traces of curliness on the outside leaves and delicate flavor that suggests Savoy blood. Color is light green, very small, with fine ribs in the leaves. Grown for us in Denmark under special contract. Pkt., 10c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.50; ½ lb., \$2.60; 1 lb., \$5.00.

EARLY WINNINGSTADT—One of the best of the second early or medium early sorts, very hardy, with a very hard sharply pointed head and a very sure cropper. Owing to its compact and upright habit of growth and peculiar texture of its rather short and thick, dark green leaves, the variety resists cold, wet and insect pests exceptionally well. The heads are of medium size, very closely and convolutely wrapped, sharply conical, of good quality and keep very well. The leaves are dark bluish green with much bloom. The variety is very extensively used for the home garden. It is sometimes planted late and then makes a desirable winter cabbage. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.85; 1 lb., \$3.50.

CABBAGE—Continued

GLORY OF ENKHUIZEN—A comparatively new second early variety, very sure heading and of excellent quality. Plant of vigorous growth, with large, rather spreading outer leaves which are noticeably curved. Heads globular or very nearly round, very solid and of large size for so early a variety. Pkt., 5c; oz., 40c; 2 oz., 75c; ¼ lb., \$1.25; ½ lb., \$2.25; 1 lb., \$4.00.

Late



DANISH BALL HEAD.

CLOVER LEAF HOLLAND OR DANISH BALL HEAD—Short stemmed. Genuine Danish grown stock. Most remarkable late cabbage yet produced. This is one of the hardest cabbages in cultivation, and endures both frost and drought that would destroy other varieties. The plants are hardy and compact; leaves very smooth, but thick; heads of medium size, round and very solid, being the hardest heading cabbage and of the very best quality. Matures quite late, keeps well and is considered by many the best cabbage to keep until spring. Pkt., 5c; oz., 40c; 2 oz., 75c; ¼ lb., \$1.25; ½ lb., \$2.25; 1 lb., \$4.00.

DRUMHEAD SAVOY—The best variety of Savoy or crumpled leaf cabbage. The plant is vigorous, with short stem, has densely crumpled leaves and when touched by frost is sweet, delicate and delicious. The head is large and very solid. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.85; 1 lb., \$3.50.

FLAT DUTCH, SELECTED—A low-growing variety; heads large, bluish green, round, solid, broad and flat on top; an excellent fall and winter variety and a good keeper; it is a sure header. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.85; 1 lb., \$3.50.

ROCK RED—Best red sort, much used for pickling. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.85; 1 lb., \$3.50.

CLOVER LEAF DANISH ROUND HEAD—An earlier, shorter stemmed, improved strain of the Danish Ball Head cabbage. The heads are hard and very solid and mature about two

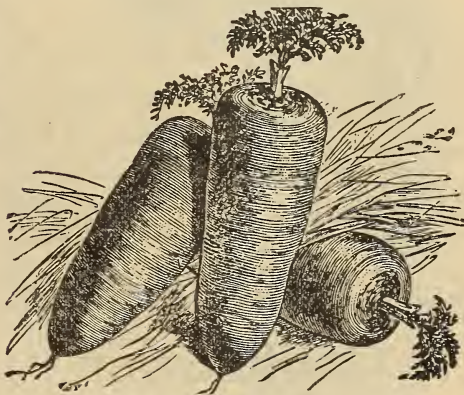
weeks in advance of the Ball Head. They also average a little larger and heavier. The inner leaves are blanched almost pure white, are of sweet flavor, crisp and tender. Grown for us in Denmark under special contract. Pkt., 10c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.50; ½ lb., \$2.60; 1 lb., \$5.00.

Carrots

Too many planters have the idea that any sort of carrot seed is good enough, but this is very erroneous and fatal in securing best results. Our carrot seed has always been given special attention, as quality has always been our first consideration. The results are shown in our largely increased yearly sales.

CULTURE—The carrot, like other root crops, delights in a sandy loam, deeply tilled. For early crops, sow in the spring as soon as the ground is in good working order; for late crops sow any time until the middle of June.

In common with other seeds, carrots have been a short crop, but owing to the fact that we had a very large amount contracted for we expect to be able to fill all our orders in full, with exception of Scarlet Horn and perhaps one of the field varieties, even though we did not receive full delivery on our contracts.



Danvers Half-Long

Carrots—Table

CHANTENAY—Early, scarlet color, stump rooted, broad, thick shoulder, heavy cropper. Fine quality. In shape and appearance it takes a place between the Oxheart and the Danvers Half-Long.

DANVERS HALF-LONG, IMPROVED—A first-class carrot for all soils. The root is of a rich, dark orange color and grows very smooth and handsome. Very productive, producing as much tonnage to the acre as the longer field sorts, and is much easier harvested.

OXHEART OR GUERANDE—A thick carrot, five or six inches long and very blunt at the lower extremity. It grows very rapidly and the root attains a weight of more than a pound. It is tender and of good flavor, and a variety that we can recommend to all market gardeners.

All varieties of table carrots unless otherwise quoted: Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 50c; ½ lb., 90c; 1 lb., \$1.75; postpaid. At purchaser's expense, 1 lb., \$1.65; 5 lbs., \$8.00; 10 lbs., \$15.00.

SCARLET HORN, EARLY—A very early variety. Recommended for the very early market and family garden. Texture fine; very delicate in flavor. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 65c; ½ lb., \$1.10; 1 lb., \$2.00.



Oxheart

Carrots—Stock

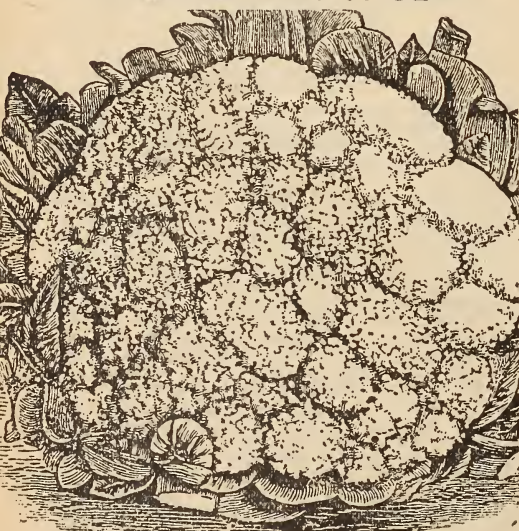
MASTADON—The flesh is white, crisp, solid and very sweet in flavor. Roots half long, smooth, very heavy at the shoulder; an immense yielder.

YELLOW BELGIAN—Grows one-third out of the ground; root pure white, green above ground with small top; flesh rather coarse; the roots, on light, rich ground grow to a large size, and are extensively grown for stock feeding.

YELLOW GIANT—This carrot is a half-long variety, with an immense broad shoulder. The roots penetrate less than one-half the depth into the ground. The color is a bright yellow, and is perfection for giving the proper color to your butter.

All stock carrots: Oz., 15c; 2 oz., 30c; ¼ lb., 45c; ½ lb., 80c; 1 lb., \$1.50; postpaid. At purchaser's expense, 1 lb., \$1.40; 5 lbs., \$6.75; 10 lbs., \$12.50.

Cauliflower



Snowball

CAULIFLOWER is one of the best paying crops that can be sown. The seed is among the most expensive. Perhaps there is not any other seed that varies so much in price. It is so expensive that some growers save seed from all their plants, while others make a very careful selection, using only perfect plants from which to save their seed. It therefore follows that seed saved by the latter plan will be much more expensive, but much better than seed saved by the former plan. Our seed is grown by Denmark experts who have made this a study and won for themselves a reputation for growing the very best seed.

CULTURE—The soil for cauliflower should be like that for cabbage, but is better if made richer than is ordinarily used for that crop. It should be borne in mind that cauliflower will not head up good in hot, dry weather, and hence the sowing should be so regulated as to bring it to maturity either before the hot summer weather sets in or not until the cooler weather of the fall. After the heads begin to form, draw the leaves over and pin or tie them together to protect the heads from the sun and keep them white.

We receive our supply of Cauliflower from Denmark, but owing to the difficulty of securing water transportation, this seed has not yet arrived at this date—Dec. 1, 1917. The crop is reported fair, and if we receive seventy-five per cent delivery on our contract, will be able to fill our orders in full.

Early

CLOVER LEAF SNOWBALL (Best Imported Strain)—This is an improved extra early strain of dwarf, compact growth. Under favorable circumstances nearly every plant will make a fine, solid head of good size. It is valuable for both early and late. Pkt., 10c; ½ oz., \$1.50; oz., \$3.00 2 oz., \$5.50; ¼ lb., \$10.00.

DANISH GIANT OR DRY WEATHER—Large leaved, with pure white compact heads. It is truly a first-class cauliflower and is specially adapted to dry locations and to resisting the effects of drouth. Two weeks later than the Snowball, when planted at same time. Pkt., 10c; ½ oz., \$1.50; oz., \$3.00; 2 oz., \$5.50; ¼ lb., \$10.00.

Late

AUTUMN GIANT—A distinct and valuable late variety. The heads are reasonably large, beautifully white, firm and compact, and, being well protected by foliage, remain for a long time fit to use. The plants should be started and transplanted early in the season to insure their full development. Pkt., 5c; oz., \$1.00; 2 oz., \$1.75; ¼ lb., \$3.25.

Celery

It is a fact not generally recognized by the planter, and not generally referred to by seed houses, that there are only a few places that produce celery seed of such quality that would warrant it being sown. This is accounted for by the fact that it takes a rare and peculiar combination of soil, climate and conditions to produce this seed to perfection; hence it follows that the seed produced under these favorable conditions will be much higher in price than the ordinary seed, especially when we remember that such favorable conditions are limited.

CULTURE—Sow in light, rich soil, in shallow drills, and cover the seed lightly with finely sifted mold. When the plants are 5 to 6 inches high transplant to rows 3 to 4 feet apart, according to the variety, allowing 8 inches between the plants in the row. Cultivate freely and earth up to blanch the stems, pressing the soil firmly around the plant almost to the top, care being taken not to cover the tops of the center shoots.

CELERY—Continued

We have been fortunate in securing our celery seed from our grower and have it now in stock and will be able to fill any reasonable orders for this extra fine imported seed.



White Plume Celery.

Early

WHITE PLUME—A very popular variety on account of its naturally white leaf stalks, which require less blanching than the other kinds. It is early, a fine market sort, and the variety mostly used by gardeners. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.75; 1 lb., \$3.00.

Medium

GOLDEN SELF-BLANCHING—It is of a rich, golden tint when ready for the table; very handsome and of excellent quality. Pkt., 10c; oz., \$1.25; 2 oz., \$2.25; ¼ lb., \$4.00.

Late

CELERIAC OR TURNIP-ROOTED—Grown exclusively for its roots, which are turnip-shaped, very smooth, tender and marrow-like. The roots are cooked and sliced; used with vinegar they make an excellent salad. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c.

GIANT PASCAL—One of the most popular sorts for winter use. It is very large in growth; the stalks are exceptionally thick with very heavy hearts which, when blanched, are of a beautiful creamy yellow color. Very brittle and of a superb flavor. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.

WINTER QUEEN—A very fine variety for winter storage. Robust, stocky growth, requiring but little labor in blanching. The heart stalks are heavy, broad and solid, but crisp and tender, blanching to a rich, creamy white. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.50.

Corn—Sweet

CULTURE—Sweet corn should not be planted deeper than one inch to one inch and a half, as it is liable to rot in the ground, especially if the ground has not become warm. Hoe often, drawing the earth against the stems and break off the side shoots.

It is true that the corn crop this year has been greater than perhaps in any former year, but owing to the very unfavorable weather for saving and curing the crop, there has been great difficulty experienced in securing seed with satisfactory germination. We therefore advise very thick planting, as at this date, Dec. 1, 1917, it is expected a great deal of the corn will only have a fifty or sixty per cent germination, and in some instances some varieties were total failures. Our grower reports a total failure of Peep O' Day.

While we are quoting sweet corn in quantities, we do not know yet the amount we will receive and do not guarantee present quotations to be adhered to.

ted: 1 lb., 35c, postpaid; at purchaser's expense, lb., 25c; 5 lbs., \$1.20; 10 lbs., \$2.20; 25 lbs., \$5.00; 50 lbs., \$9.50; 100 lbs., \$18.00.

First Early



WHITE CORY

EXTRA EARLY—One of the earliest varieties well and favorably known in all parts of the country. It succeeds well where the seasons are short, and can be recommended for general planting. Ears six inches long, with eight rows of broad grains.

EARLY MINNESOTA

—This deservedly popular variety is one of the best second early sorts for the market and the home garden. The stalks are about six feet high, bearing one or two ears well covered with husks. The ears are about eight inches long, eight rows; kernels very broad, white, sweet and tender, not shrinking much in drying. By careful selection we have developed a stock of this standard variety which is remarkably uniform and in which all the good qualities that have made this sort so desirable are intensified.

GOLDEN BANTAM—Of extreme hardness, this can be planted earlier than any other true sweet corn, and will then produce the earliest supply of ears for the table. The stalks grow from three and one-half to four feet in height and produce one or two good ears on each stalk. The ears are about six inches in length, completely filled with eight rows of golden-yellow grains, extending to the rounded tip.

QUALITY—The flavor is deliciously distinct, exceptionally rich and sugary, the sweetest of all, superior to that of any other corn. Of all varieties the name "Sugar Corn" seems to fit this best as it is so unusually sweet. The decided preference shown for it in market, restaurant and home has enabled many growers to

CORN—Continued

sell Golden Bantam at a premium. It is so unique in appearance that all who have ever enjoyed the golden yellow ears recognize them instantly. One cannot forget such splendid quality.

HOWLING MOB—This variety has become very popular on account of its earliness, and its possessing the sweet flavor of the later varieties. The stalks are of strong vigorous growth, four and one-half to five feet in height, have abundant foliage and generally produce two fine ears to each stalk. The ears measure seven to nine inches in length with twelve or fourteen rows of good-sized pearly-white grains. They are covered with a heavy husk which extends well out from the tip of the ears and affords good protection from the green worms which are so often destructive to early varieties.

Golden Bantam and Howling Mob: 1 lb., 40c; postpaid. At purchaser's expense, 1 lb., 30c; 5 lbs., \$1.50; 10 lbs., \$2.90; 25 lbs., \$7.00; 50 lbs., \$13.00; 100 lbs., \$25.00.

PEEP O' DAY—For earliness, flavor, sweetness and productiveness it is ahead of any other early white sweet corn. It will prove a money-maker for the market gardener, and a valuable addition to our list of corn for our short western summers. Crop failure.

Medium Early

COUNTRY GENTLEMAN—A favorite second early or main-crop variety with all private gardeners for its tenderness, delicacy, small, deep grains, and sweetness. The ears are of fair size, frequently three or four to the stalk. 1 lb., 40c postpaid. At purchaser's expense, 1 lb., 30c; 5 lbs., \$1.50; 10 lbs., \$2.90; 25 lbs., \$7.00; 50 lbs., \$13.00; 100 lbs., \$25.00.

EARLY EVERGREEN—This fine variety yields large, handsome, ten and twelve rowed ears, averaging about nine inches in length. It is very sweet, has a fine flavor and remains tender a remarkably long time.

STOWELL'S EVERGREEN—The standard main crop variety, much used for the home garden, market and canning. It is hardy and productive, very tender and sugary, remaining a long time in condition suitable for boiling. Our stock has been carefully grown and selected to avoid the tendency to a shorter grain and deterioration in the evergreen character of this sort. This corn is distinguished by the large ear, the long, deep kernels, its rich, sugary flavor and its long keeping qualities. The ears are about seven to eight inches long, fourteen to twenty rowed, with very white grain. The stalks are about seven and one-half feet high. The best known and most largely planted of all the late varieties.

All varieties of sweet corn not otherwise quoted: 1 lb., 40c, postpaid. At purchaser's expense, 1 lb., 35c; 5 lbs., \$1.50; 10 lbs., \$2.80; 25 lbs., \$6.50; 50 lbs., \$12.00; 100 lbs., \$23.00.

Corn—Field

Corn growing is becoming more and more a staple product in the Northwest and experiments have shown that with carefully prepared fertile soil the difference in seed has made a difference in the yield of double the bushels per acre. It has been fully demonstrated that home grown seed will mature a great deal better than seed secured from the East. We therefore draw special attention to our home grown Minnesota King and our home grown White Cap Dent.

Dent, Yellow

MINNESOTA No. 13—The commanding points of excellence which place Minnesota No. 13 Corn

at the head of all yellow dent varieties for Northwestern planting are: Its earliness, its enormous productiveness, its adaptability to a great variety of soils and climates. The ears are of handsome appearance, bearing 16 to 20 rows of bright, rich yellow, smooth, wedge-shaped kernels packed closely on the cob from butt to tip. The ears average eight inches in length and are borne usually two on a stalk. No corn excels in quality the Minnesota No. 13; the cobs are well filled and the individual kernels plump and of good color. The stalks grow to a height of seven feet and being leafy make excellent and very nutritious fodder. A variety of corn which shows such valuable characteristics is an acquisition on any farm, especially for planting in the Northwest where early frosts are common.

MINNESOTA KING

(Home Grown)—We regard this corn in some respects as the most valuable early corn for the Inland Empire. It seems to possess a faculty of growing right along and making a crop during weather and under conditions that would ruin other varieties. In appearance the Minnesota King is remarkably distinct, being a half yellow dent; the kernels are very broad and are a rich golden color.

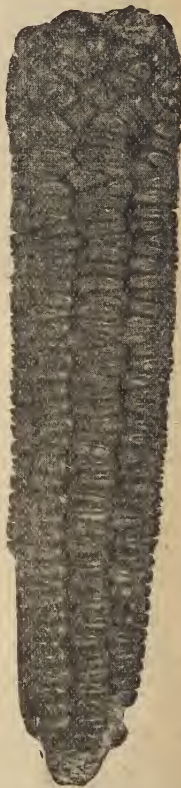
PRIDE OF THE NORTH

—This is a standard early variety of corn in the East, but is not sure to mature here. From the fact that it produces a large amount of fodder and being early enough to get in proper condition for ensilage, it has taken the lead over all other corns for this purpose. 1 lb., 25c, postpaid. At purchaser's expense, 5 lbs., 75c; 10 lbs., \$1.25; 25 lbs., \$2.75; 50 lbs., \$4.50; 100 lbs., \$8.50.

WHITE CAP (Home Grown)—This has been very successfully grown in this locality for a number of years and has proved very satisfactory. Owing to the fact of last spring being late, cold and wet, it gave corn a thorough test as to whether it was adapted to this section under adverse circumstances. Our grower never had a better crop than he had this past season. The seed we are offering was grown a few miles from Spokane. It ripens early and matures well. Stalks grow to a height of 10 feet and produce 14 and 18 rowed ears that are solid and handsome. This being fully acclimated will mature under any reasonable conditions.

It's early. Productive. Fully acclimated. Very highly recommended. A sure cropper.

Minnesota King, White Cap Dent and Minnesota No. 13: 1 lb., 25c, postage paid. At purchaser's expense, 5 lbs., 75c; 10 lbs., \$1.40; 25 lbs., \$3.00; 50 lbs., \$5.00; 100 lbs., \$9.00.



CORN—Continued

Flint, Yellow

EARLY EIGHT-ROWED, OR EARLY CAN-ADA—The great Yellow Flint corn—the corn for the extreme north. The greatest of all the Flint varieties. Ears long, of rich yellow color. Will prove to be of the greatest value to the farmers of the far north. Ripens earlier than any of the Flints.

SQUAW—Exeremely early, and rather dwarf. Produces an ear from 7 to 8 inches in length and is a heavy yielder.

Early Eight-Rowed and Squaw: 1 lb., 25c; postpaid. At purchaser's expense, 1 lb., 15c; 5 lbs., 75c; 10 lbs., \$1.25; 25 lbs., \$2.50; 50 lbs., \$4.25; 100 lbs., \$7.50.

Dent, White

WISCONSIN EARLY—The stalks grow to an average height of 8 feet and are thickly furnished with foliage close to the ground. The ears are large, with 16 to 20 rows of large, deep kernels, which are closely set on a small white cob. 1 lb., 25c, postage paid. At purchaser's expense, 1 lb., 15c; 5 lbs., 75c; 10 lbs., \$1.25; 25 lbs., \$2.50; 50 lbs., \$4.25; 100 lbs., \$7.50.

Pop

WHITE RICE—The best corn for popping and for the general market; early, white pointed kernels. 1 lb., 30c, postage paid. At purchaser's expense, 10 lbs., \$1.50.

CRESS

PEPPER GRASS (Curled)—The leaves, when young, have a warm, pungent taste, and are used as a salad, either alone or mixed with other salad plants. As they are milder and more tender when young, the seed should be sown at intervals of 10 to 15 days, making the first sowing as soon as the ground can be prepared. Pkt., 5c; oz., 10c; ¼ lb., 20c; ½ lb., 30c; lb., 50c.

WATER—A delicate, pungent salad plant, very agreeable alone or mixed with other salads. Entirely distinct from common cress, thriving only where its roots are submerged. Sow the seed thinly along the banks of any shallow stream early in the spring. Pkt., 5c; oz., 35c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.25.

Cucumbers

CULTURE—Plant in hills about four feet apart each way; thin out to four of the strongest plants in each hill; they succeed best in warm, moist, rich, loamy soil. The cucumbers should be gathered when large enough for use, whether required or not; if left to ripen, it destroys their productiveness.

There has been a general shortage in deliveries, and in a great many cases the Boston Pickling variety has been a complete failure.

All varieties of cucumbers unless otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25; postpaid. At purchaser's expense, 1 lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

BOSTON PICKLING—This is a very productive variety that is extensively grown for pickles. The vines are vigorous. The fruits are bright green, of medium size, very smooth and symmetrical. The flesh is crisp and tender.

COOL AND CRISP—A strain of the White Spine, but longer and more cylindrical; very early and exceedingly prolific. While it is esteemed most highly as a pickling sort, it is one of the very best for slicing, being tender, crisp and of fine flavor.



DAVIS PERFECT—This cucumber has an ideal shape and a beautiful dark green color, which it holds extremely well during the slicing season. Its eating qualities are unsurpassed, both because of its fine flavor and its small number of seeds, which, during the slicing period, are so small and tender as to be practically unnoticed; believe it will produce more fruit than any other variety ever grown. Pkt., 5c; oz., 15c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 90c; 1 lb., \$1.50; postpaid. At purchaser's expense, 1 lb., \$1.40; 5 lbs., \$6.75; 10 lbs., \$12.50.

EARLY CLUSTER—A short, prickly variety; usually growing in clusters. Is a prolific bearer, and one of the earliest; flavor excellent.

EARLY WHITE SPINE—One of the best sorts for trade use, fruiting early and abundantly; fruit uniformly straight and handsome; light green, with a few white spines.

EVERBEARING—This is not only a very early variety but is also extremely prolific. If the fruits are kept gathered, vines will continue in bearing throughout the season. The fruits are of medium size and rich dark green color, average from four to five inches in length by an inch and a half in diameter. Owing to its great productiveness. It is an excellent variety to plant for producing small pickles. Pkt., 5c; oz., 15c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 90c; 1 lb., \$1.50; postpaid. At purchaser's expense, 1 lb., \$1.40; 5 lbs., \$6.75; 10 lbs., \$12.50.

GHERKIN, WEST INDIA—This variety is used exclusively for pickling, a distinct species from the common cucumber. It is a vigorous grower and consequently should be planted 6 feet apart. The fruit is very small, almost round and closely covered with spines. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.10; 1 lb., \$2.00.

IMPROVED LONG GREEN—The vines are very vigorous and productive. The fruits are very long, often twelve to fifteen inches when mature. They are uniformly slender and of beautiful dark green color. The large warts and spines are well distributed over the surface instead of being clustered at one end as in inferior stocks. The variety furnishes some fruits early but matures the bulk of its crop rather late. It is a standard sort for slicing and is very largely used for pickles. This is probably the most extensively used cucumber for the home garden and market. We have given this variety especial attention for many years and we believe the stock we offer has no equal. Pkt., 5c; oz., 15c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 90c; 1 lb., \$1.50; postpaid. At purchaser's expense: 1 lb., \$1.40; 5 lbs., \$7.00; 10 lbs., \$12.50.

CUCUMBERS—Continued

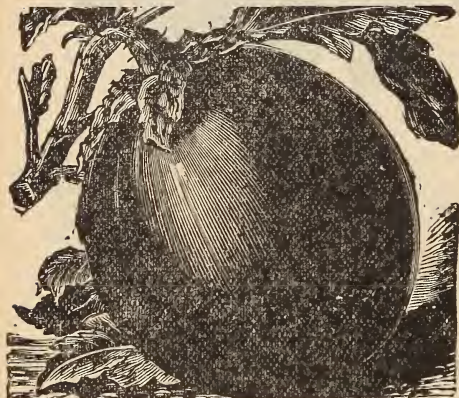
JAPANESE CLIMBING—A sort of pole cucumber, its name being due to its tendency to climb and bear its fruit up from the ground, if afforded support; fruit large and thick. Pkt., 5c; oz., 20c.

SHORT GREEN, OR EARLY FRAME—A vigorous and productive variety, producing fruit of medium size and regular form; flesh crisp and tender; excellent for the table or pickling.

All varieties of cucumbers unless otherwise quoted: Pkt., 5c; oz., 15c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25; postpaid. At purchaser's expense, 1 lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

EGG PLANT

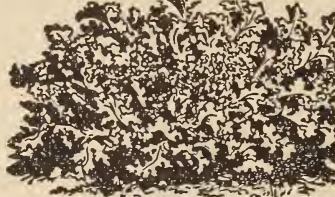
CULTURE—Sow in hotbeds very early in the spring; transplant to 2 or 3 feet apart in very rich, warm ground. Do not plant them outside till nights have become warm, as the least frost or cold nights will greatly retard their growth.



Improved New York

BLACK BEAUTY—This beautiful egg plant is 10 days earlier than the New York Improved. The fruit is broad and thick, of most attractive form and does not fade or change to a lighter color at the blossom end. The fruits set freely and are ready for market early, so the crop can be gathered before danger of frost. Pkt., 10c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.50; ½ lb., \$2.75; 1 lb., \$5.00.

NEW YORK IMPROVED—This is a standard variety, both for market and home garden; a favorite everywhere. Pkt., 10c; oz., 40c; 2 oz., 70c; ¼ lb., \$1.25; ½ lb., \$2.25; 1 lb., \$4.00.

ENDIVE

This is one of the most refreshing and attractive of all autumn and winter salads. It is most appetizing when served mixed with lettuce, with French dressing. Sow seed from middle of June to last of August.

BROAD LEAVED BATAVIAN—Leaves are broad, thick, green, more or less twisted and waved with white mid-ribs. It forms large hearts, which when blanched form one of the best winter salads. Crisp, tender and fine flavor.

LARGE GREEN CURLED—A fine market sort; tender, green leaves; blanch white; hardy. Both varieties of Endive: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25.

GARLIC

Has a bulbous root, with a strong, penetrating odor and flavor. Belongs to the onion family and cultivated much in the same manner. We cannot offer seed, but can supply the bulbs or sets.

This is extensively used in many places for flavoring soups, stews, etc. The sets should be planted early in spring and treated like onions. 1 lb., 35c.

KALE OR BORECOLE

Kale, or Borecole, is a kind of cabbage that does not form a close and solid head, but a cluster of beautifully curled or wrinkled leaves that are tender and of excellent flavor. It requires the same treatment as cabbage, and is very hardy, being improved by frost.



Kale

DWARF GREEN CURLED SCOTCH—Plant low and compact, with large, bright, deep green leaves, curled, cut and crimped until the whole plant resembles a bunch of moss.

TALL GREEN CURLED SCOTCH—Produces an abundance of dark green, curled leaves. Very hardy.

Both varieties of Kale: Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 55c; 1 lb., \$1.00. **THOUSAND HEADED**—The great demand for this wonderful forage plant proves it to be the most valuable green feed for dairy and stock men. Endorsed by agricultural colleges and government stations. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 40c; 1 lb., 75c.

KOHL-RABI

The Kohl-Rabi is a vegetable intermediate between the cabbage and turnip, and combines the flavor of each. The edible part is a turnip-shaped bulb. When used for the table this should be cut when quite small, as it is then very tender and delicate, but if allowed to reach its full size it becomes tough and stringy.

EARLY WHITE VIENNA—Is the earliest and best for forcing; is very tender; excellent for table use. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.00; 1 lb., \$1.75.

tender; excellent for table use. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.00; 1 lb., \$1.75.

LEEK



LARGE LONDON, OR SCOTCH FLAG—This leek is generally considered more delicate than the onion for soup, etc. Sow in seedbed middle of spring; when the plants are three or four inches high, transplant them into rows wide enough apart to admit the hoe between them. Pkt., 5c; oz., 15c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 80c; 1 lb., \$1.50.

Lettuce

CULTURE—Sow every month as soon as the ground is open, in drills one foot apart, covering the seeds about one-quarter of an inch deep and thinning out to 6 or 8 inches in the row. For a cut salad sow thicker and do not thin out. Does best in rich, moist soil.

We will have a fair supply of all varieties with exception of New York and this has been almost a complete failure.



Early and Forcing

BIG BOSTON, (Seed White)—This market variety is very popular for outdoor culture and is also in demand as a compact, large heading, forcing sort for cold-frames. The plants are large, very hardy and vigorous. The leaves are broad, comparatively smooth but wavy at the edge, thin, very hard and crisp. In color they are bright light green, the head slightly tinged with reddish brown. The inner leaves blanch to an attractive greenish white, tinged with light yellow. It heads up under cold weather conditions better than any other variety.

GRAND RAPIDS, (Seed Black)—As a lettuce for greenhouse forcing this variety undoubtedly stands at the head of the list, being of quick growth, little liable to rot and standing for some days after being ready to cut. This plant is upright and forms a loose head or cluster of large, bright leaves, slightly crimped and blistered and rather thin.

Big Boston and Grand Rapids: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25.

LOOSEHEAD OR CUTTING

PRIZEHEAD—Large, loose-headed sort. The leaves are tinged with brown, very heavy.

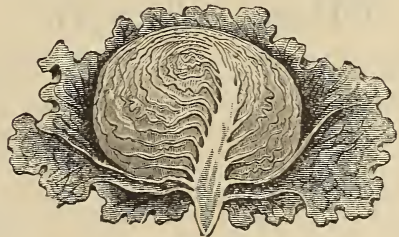
SIMPSON, (Black Seeded)—Very large, loose heads of curly, golden-yellow, leaves which are thin and tender. It stands summer heat splendidly and is valued for frame culture.

CURLED SIMPSON OR SILESIA—One of the best curled varieties for early sowing out of doors. Very popular with market gardeners and private planters.

Prizehead and Simpson's: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25.

Heading

CALIFORNIA CREAM BUTTER OR ROYAL SUMMER CABBAGE—A very reliable heading sort, with glossy, deep green leaves, the outer ones slightly spotted or splashed with brown. The inner leaves form a large, very solid head, rich light yellow in color, very thick and tender and buttery.



Hanson

HANSON IMPROVED—It is a fine heading variety of the largest size; solid, sweet, tender and crisp throughout, and entirely free from any bitter taste.

ICEBERG—Has an unusually solid head. The white main ribs of the leaves curve toward the center, which keeps the interior thoroughly blanched. It is quickly growing and always crisp and tender.

NEW YORK OR WONDERFUL—The mammoth heads are solid, heavy, beautifully blanched to a creamy white with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet. The New York is a hardy, rapid grower, deep rooted and resistant to drought; a slow seeder and sure to head. Pkt., 5c; oz., 20c. Crop failure.

LETTUCE—Continued

SALAMANDER, (Seed Black)—A very extensively used sort of excellent quality for the home garden and market. The variety withstands hot weather remarkably well. It forms a large compact, light green plant. The leaves are broad, thick, somewhat crumpled and closely overlapping so that the inner ones are very finely blanched. It is one of the most satisfactory heading lettuce for growing outdoors.

Cream Butter, Hanson, Iceberg and Salamander: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25.

Cos

PARIS WHITE COS—The Cos Lettuce differs entirely in shape from other varieties, the head being elongated and of conical form, eight or nine inches in height and five or six inches in diameter. The outer coloring of this variety is yellowish green. To be had in perfection it requires to be tied up to insure blanching. Pkt., 5c; oz., 15c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25.

MUSHROOM SPAWN

With intelligent care and good spawn, mushrooms can be made to pay handsomely. They can be successfully grown in a dry cellar or under the benches of a greenhouse, where the temperature can be kept from 50 to 60 degrees.

LAMBERT'S PURE CULTURE—A new kind of spawn, without doubt the best. It comes in bricks, weighing about 20 ounces. These are broken up into pieces the size of a walnut and put into the bed one foot apart each way. Brick, 35c; postpaid. At purchaser's expense: Brick, 25c; 5 bricks, \$1.15; 10 bricks, \$2.00.

Illustrated book on Mushroom Culture, containing the latest methods of raising, preserving and cooking mushrooms. 15c, postpaid.



Musk Melons

There is not anything more refreshing than a fine flavored musk melon or canteloupe. It may seem strange to some that the selection of the seed should have anything to do with this flavor. There is a flavor peculiar to each distinct variety, and this can only be obtained when the varieties are kept up to their well-known standard, and they can only be kept up to this standard by a very careful selection of the melons from which the seed is saved. Our growers have always this thought in mind, hence the seed furnished us by our careful and intelligent growers will give best results on account of its careful selection.

CULTURE—The seed should not be planted until the soil has become thoroughly warmed. about corn-planting time. Plant five or six seeds to the hill, in hills four to six feet apart. Rich soil or well-rotted manure should be used in the hills.

The general delivery on Musk Melons is about seventy-five per cent, but we expect to fill all our orders in full.

Green-Fleshed Varieties

CANTELOUPE, LARGE YELLOW—The fruit is large, oblong, slightly ribbed and coarsely netted. The flesh is light yellowish-green, very sweet, crisp and delicious. Pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; 1 lb., \$1.50.

CASSABA—Large oblong melon, well ribbed thin skin, green flesh; prolific and of delicious quality; late maturing; good keeper. Pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; 1 lb., \$1.50

HACKENSACK EXTRA EARLY IMPROVED—A selection from and an improvement on the old Hackensack, and similar in shape and appearance; nearly as large and fully 10 days earlier; one of the finest for market gardeners; quality perfect.

NUTMEG, EARLY PROLIFIC—Fruit of medium size, slightly ribbed, globular. Skin dark green, becoming yellow when overripe, and nearly covered with broad, shallow netting.



ROCKY FORD OR NETTED GEM is a new and most valuable introduction, and has attained in an incredibly short time a national reputation. It is of the Netted Gem type, oval in shape, averaging from four and one-half to five inches in length, of a delicious flavor, very fine and smooth grained flesh, of a light green color throughout.

This melon has proved to be very profitable, hence popular on account of its superior quality and its ready sale on the market.

POLLOCK'S RUST-RESISTANT—Mr. Pollock originated the melon bearing his name by selecting seed from a plant which had not rusted out of a field that the rust had destroyed. This point has been observed in selecting stock seed until the melon, while not being perfectly rust-proof, is practically so. The main difference between it and the original old style Rocky Ford is more uniformity. Pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; lb., \$1.50.

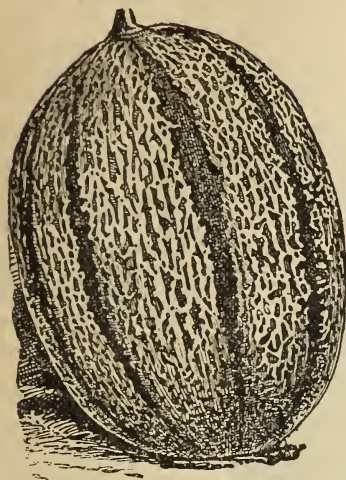
At purchaser's expense, lb., \$1.40; 5 lbs., \$6.75; 10 lbs., \$12.50.

All varieties of green fleshed musk melons not otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25. At purchaser's expense, lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

Salmon-Fleshed Varieties

BANANA—This is a Banana Melon of a banana shape, banana flavor, banana color and banana quality; it resembles the banana in many respects, only that it is very much larger, growing from 18 to 30 inches long and from 4 to 6 inches in diameter. Everybody who is fond of bananas will take pleasure in growing and surely will be delighted with this Melon, which is not a mere curiosity, but owing to its exquisite musky flavor, brings the highest price in any market. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c.

MUSK MELONS—Continued



Burrell Gem

BURRELL GEM—Burrell's Gem has a tough thin rind, well arched ribs, covered with a closely interlaced gray netting; shape elongated, being about $4\frac{1}{2}$ inches in diameter by 6 inches long, flesh of a reddish orange, very thick, fine grained and spicy, seed held firmly in a triangular cavity. This is the secret of a good shipping melon. If the seeds shake loose easily a melon will quickly decay.

EMERALD GEM—This is a variety of excellent quality and of medium size. The skin, white-ribbed, is perfectly smooth and of a deep emerald green color. The flesh is thick and of a deep salmon color, and ripens to the green rind. The flavor is very sweet and luscious. The vines are hardy and very prolific, and the melons mature extremely early.

HOODOO—Sometimes sold as Ordway Queen. This is an orange fleshed variety of medium size, ideal as a shipping melon and a desirable mid-season sort for the home garden. The vines are vigorous, blight-resisting and very productive. The fruits are uniformly of medium size. The netting is exceptionally fine and dense, extending over practically the entire surface. The rind is thin yet very firm, so that the melons arrive in perfect condition in distant markets. The flesh is very thick, firm, highly colored, of fine texture and delicious flavor.

Burrell's Gem, Emerald Gem and Hoodoo musk melons: Pkt., 5c; oz., 20c; 2 oz., 30c $\frac{1}{4}$ lb., 50c; $\frac{1}{2}$ lb., 85c; lb., \$1.50. At purchaser's expense, lb., \$1.40; 5 lbs., \$6.75; 10 lbs., \$12.50.

OSAGE OR MILLER'S CREAM—The skin is very thin, of a dark green color and slightly netted. The flesh is of a salmon color, remarkably sweet, extremely thick, and delicious to the rind. It is also very productive. It is a remarkable keeper, and will stand shipping.

PAUL ROSE OR PETOSKEY—A successful cross between the Osage and Netted Gem. It combines the sweetness of the former with the fine netting of the Gem, and is even a better shipper than that variety. The melons grow uniform in shape and size. The flesh is remarkably thick, making the melons very solid and heavy, and of a beautiful salmon or orange color; delicately sweet and melting.

Osage and Paul Rose melons: Pkt., 5c; oz., 15c; 2 oz., 25c; $\frac{1}{4}$ lb., 40c; $\frac{1}{2}$ lb., 75c; lb., \$1.25. At purchaser's expense, lb., \$1.15; 5 lbs., \$5.50;

GARDEN LEMON—The fruit is short, nearly round with yellow and green markings; skin smooth, flesh very tender and of sweet flavor. Best when turning yellow. Specially recommended for preserves. Pkt., 5c; oz., 25c; $\frac{1}{4}$ lb., 75c.

SPECIAL MUSK MELONS

We call special attention to the three following types of melons. Melons, like a great many other things, have undergone a great improvement in type and quality, but none any more so than the following types:

CLOVER LEAF GOLD LINED ROCKY FORD—We have carefully inspected every strain and type of Rocky Ford Cantaloupe, and we believe this to be the very best type, for all purposes, that there is in existence. It is an ideal crate melon, as fruits grow uniform, and loss from undersize and oversize is very small, and its quality can not be excelled. Medium size, solid net, gold lined or inner lining of yellow, small seed cavity, excellent quality, vines hardy, thrifty and rust-resistant.

Pkt., 10c; oz., 25c; 2 oz., 40c; $\frac{1}{4}$ lb., 65c; $\frac{1}{2}$ lb., \$1.10; lb., \$2.00.

ROCKY FORD PINK MEAT—The Pink Meat Rocky Ford is the same general type of melon in appearance as the Gold Lined, with netting a trifle finer. Better shipper than the old type green fleshed Rocky Ford. Flesh pink and of excellent flavor. The Pink Meat Rocky Ford Cantaloupe has become very popular in the last two or three years. Its shipping qualities are excellent, quality all that can be desired, and we believe is destined to be very popular. Pkt., 5c; oz., 20c; 2 oz., 30c; $\frac{1}{4}$ lb., 50c; $\frac{1}{2}$ lb., 85c; 1 lb., \$1.50.

HONEY DEW

The Originator's History of the "Honey Dew"

The original seed of this new melon was secured from a melon shipped from Africa to New York City. This seed was planted at Rocky Ford, Colorado, and crossed with the genuine, original "Rocky Ford" cantaloupe by pollenization. The following season this hybrid seed was again crossed with the Improved Hybrid Casaba. Seed enough was obtained from this cross to plant one and one-half acres in 1915, from which I shipped three cars, aggregating 1175 crates, which were shipped to Chicago. After paying freight, icing charges and commissions the three cars netted me \$3719.00. After deducting the price of the crates I still had \$3600.00 net from the one and one-half acres, or \$2400.00 per acre.

I named the melon "Honey Dew." It is as sweet as honey and has the mingling of several flavors—pineapple, banana and vanilla predominating.

The average size of the melon is six inches in diameter and seven to eight inches in length, weighs five to six pounds. The skin is smooth with an occasional net, is a creamy yellow when ripe. The flesh is an emerald green, very thick, melting, and very fine grained, can be eaten to the extreme rind. The seed cavity is very small, the rind impervious to water, the melon does not shrink in weight, is not easily bruised and is a splendid shipper.

It matures about ten days later than the Rocky Ford strains and is very prolific. Yields at the rate of 8,000 to 10,000 melons per acre. The melon slips from the vine when ripe and will keep for several weeks; the late maturing ones may be kept until Christmas. Will grow where Rocky Ford varieties will thrive.

Pkt., 10c; oz., 40c; 2 oz., 75c; $\frac{1}{4}$ lb., \$1.25; $\frac{1}{2}$ lb., \$2.25; 1 lb., \$4.00.

Watermelons

Watermelon seed, like all other seeds, should be selected from true types and from melons that have attained a large growth and ripened early. This method will produce and preserve true strains, while the generally followed plan of saving seed from all melons in a field without reference to size, shape, or time of ripening, will cause types and quality to deteriorate. Our growers give a great deal of time, thought and expense to the thorough selection of the seed furnished us. Under these conditions we are obliged to pay a higher price for the seeds

eter. The skin is an attractive, very dark green, the flesh is of a beautiful bright red, extending almost to the outer rind. The rind, too, is so thin and brittle that it cracks open very easily and will not stand hauling or shipping long distances. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25. At purchaser's expense, lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

ICE CREAM OR PEERLESS—One of the best melons in cultivation. Rind thin, light, mottled green. Flesh bright scarlet; solid to the center; sweet as honey.

KLECKLEY'S SWEET, OR MONTE CRISTO—This is one of the best flavored melons in cultivation, and of a shape and color that is extremely desirable. The rind is very dark green, very thin, flesh deep scarlet, fine, and of delicious quality. For the home market and family garden it is decidedly one of the best.

Attractive red color, crisp, sweet and delicious. The heart is large with no core. The appearance and quality of this melon make it desirable for both home and market use. Oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25. At purchaser's expense, 1 lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

KOLB'S GEM—Is Very large, slightly oval, striped with light and dark green. Rind very hard and firm. Flesh bright red, solid, coarse grained, but tender and sweet.

MCIVER'S OR WONDERFUL SUGAR—Oblong in shape; size uniformly large; handsome appearance; skin shows broad bands of white, shading into narrower bands of dark green; quality is superior, flesh is soft pale pink, crisp, free from any stringiness, and juicy. The melons have a solid heart, free from cracks, while the seed rows are close to the rim.



Kleckley's Sweet

we secure than we would for ordinary seed, but we have the great satisfaction of knowing that we are supplying our customers with a very much higher grade of seeds than is usually supplied by seed houses.

CULTURE—Watermelons thrive best on light, well drained soils, but give good results on any good rich garden soil that is properly drained and cultivated. Plant after the weather is settled and ground warm. Hills should be eight feet apart each way and with well rotted manure thoroughly worked into each hill.

While Watermelons are reported short, we expect to take care of all orders entrusted to us, owing to our large contracts. This is especially true with reference to Tom Watson and Kleckley's Sweet. We placed our contract for these with a specialist in order to secure specially good strains, as we believe always in the best.

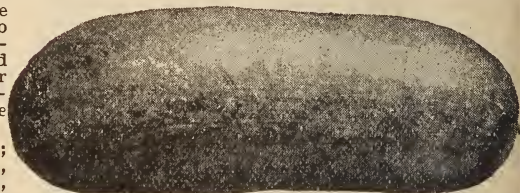
All melons not otherwise quoted: Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 55c; 1 lb., \$1.00. At purchaser's expense, lb., 90c; 5 lbs., \$4.25; 10 lbs., \$8.00.

CUBAN QUEEN—A very fine variety, growing to a great size; flesh bright red, solid and sweet. The skin is beautifully striped, dark and light green.

FLORIDA FAVORITE—Oblong in shape, and growing to a very large size; rind dark, with light green stripes; flesh light crimson, crisp and deliciously sweet.

FORDHOOK EARLY—An extra early watermelon of large size. The rind is tough, making it desirable for shipping purposes. Flesh is light red and is very sweet.

HALBERT HONEY—An exceedingly sweet and deliciously flavored melon, similar in size and shape to Kleckley's Sweet. It is of handsome, long, oval shape, averaging about 18 inches in length, and about six inches in diam-



Tom Watson

TOM WATSON—A large, oblong melon, the skin of which is dark green, with thick netting on the entire surface, quite distinct from other varieties. It averages 18 to 24 inches long and 10 to 12 inches in diameter. The rind is thin but tough and flesh is a bright red. 1 oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25. At purchaser's expense, 1 lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

All melons not otherwise quoted: Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 55c; 1 lb., \$1.00. At purchaser's expense, lb., 90c; 5 lbs., \$4.25; 10 lbs., \$8.00.

CITRON—For preserving; grows uniformly round and smooth; striped and marbled with light green; flesh white and solid. Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 55c; lb., \$1.00.

MUSTARD



MUSTARD is used alone as "greens" or with cress as salad. Sow any time in the spring, in rows.

SOUTHERN GIANT CURLED—Sweet flavor, pungent and succulent. Pkt., 5c; oz., 10c; ¼ lb., 20c; ½ lb., 30c; lb., 50c.

WHITE ENGLISH—Leaves mild and tender when young; seeds yellow. Pkt., 5c; oz., 10c; ¼ lb., 15c; ½ lb., 25c; lb., 40c.

OKRA OR GUMBO

The pods, sliced, are esteemed for soups, stews, etc., and whether used green or dried, must be gathered when young.

WHITE VELVET, HENDERSON'S—Large, round, smooth pods; never ridged; prolific. Pkt., 5c; oz., 10c; ¼ lb., 25c.

Onions

It is readily seen that there is a great variety and diversity in the shape, color, size, and flavor of onions, also in their keeping qualities. The keeping is due in some respects to the different varieties, but the care bestowed upon the selection of the bulbs of the various varieties has much to do to improve their keeping qualities. The time and labor given to this special care and attention adds to the cost, but it is well worth the additional cost to the planter, as it insures better keepers, more uniform type; also a greater yield. Our bulbs and seeds receive the necessary care to insure better results.

CULTURE—Onions do best on a rich loam, previously cultivated for two years. The land should be highly fertilized with well-rotted manure, or complete fertilizers. Culture should be frequent, though shallow. The same ground may be used for onions season after season, if well fertilized annually. Bone meal is an excellent fertilizer. Winter storage demands dryness and protection from sudden changes. Onions should never be handled while frozen.

Onion seed crop has proved to be very short, and as we practically had not any carry overs, our supply is limited. Owing to very hot weather at a time when the onions were in bloom and the seed in process of filling, the seed was scorched and this affected the germination, hence we look for low germination in nearly all varieties. We believe this to be specially true of the white varieties, as our grower reports to us that his germination tests only average about seventy-five per cent. We therefore advise thick sowing.

Brown

AUSTRALIAN—Of medium size, though never growing quite large under favorable conditions. Wonderfully hard and solid, the bulbs are most attractive for market, both as to form and appearance. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.75; 1 lb., \$3.25.

Red

LARGE RED WETHERSFIELD—This is the standard red variety and a great favorite. It is very extensively grown for home garden use as well as the market. The bulbs are large and are flattened yet quite thick. The skin is deep purplish red. The flesh is light purplish white, moderately fine grained, rather strong but of pleasant flavor. The variety is very productive, one of the best keepers and very popular for general cultivation. This medium early or main crop variety does best on rich, moderately dry soil, but on low muck land it is more apt to form large necks than the Danvers. There is no better sort for poor and dry soils. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.85; 1 lb., \$3.50.

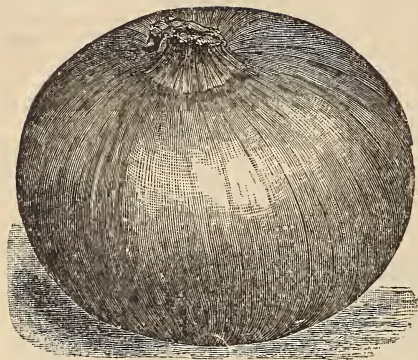


Red Wethersfield

*Our firm
belief is that
the quality
of seeds
is the first
consideration.*

*Our aim
is to supply
the very
highest grade
of seeds.*

ONIONS—Continued



Yellow Danvers

Yellow

DANVERS—The leading large yellow kind. round, slightly flattened, flesh fine-grained, rather mild, very rich and sweet; one of the best keepers and shippers, and one of the most productive kinds. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.75; 1 lb., \$3.25.

DANVERS GLOBE—This is the standard variety for winter use, producing well-ripened bulbs averaging two inches in diameter and nearly yellow; flesh pure white, crisp and mild in flavor.

MAMMOTH PRIZETAKER—A very handsome late or main crop onion of the largest size and nearly globular in form, usually with shoulder and base slightly sloping. The skin is yellowish brown or light yellow with slight tinge of brown. The flesh is creamy white, very mild, tender and of excellent flavor. The variety keeps well if thoroughly ripened and is very desirable for shipping for fall and early winter use. It is one of the best of the large European sorts that has become thoroughly acclimated in America and is exceptionally productive under proper conditions.

Yellow, Globe Danvers and Mammoth Prize-taker. Pkt., 5c; oz., 40c; 2 oz., 75c; ¼ lb., \$1.25; ½ lb., \$2.25; 1 lb., \$4.00.

White



QUEEN OR EARLY BARLETTA—Remarkable for its earliness and mild flavor; it is small and white-skinned; the leading variety for pickling purposes. Crop failure.

PORTUGAL OR AMERICAN SILVER-SKIN—Produces early onion of mild flavor; largely used for growing sets and pickles.

SOUTHPORT GLOBE—A handsome, white, globe-shaped variety; flesh fine, very white, rich and sweet; it is also one of the best keepers of the silver-skinned kind.

Portugal and Southport Globe: Pkt., 5c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.50; ½ lb., \$2.75; 1 lb., \$5.00.

SETS



BOTTOM SETS—Are grown from seed that has been sown too thick to attain a large size. The small onions thus obtained are planted out, and are ready in a short time to pull as green onions for the table or bunched for the market.

YELLOW—Lb., 25c, postpaid. At purchaser's expense, 10 lbs., \$1.50. For large quantities, write for prices, stating quantity wanted.

PARSLEY



Very useful for flavoring soups, meats and for garnishing. The green leaves are used for flavoring.

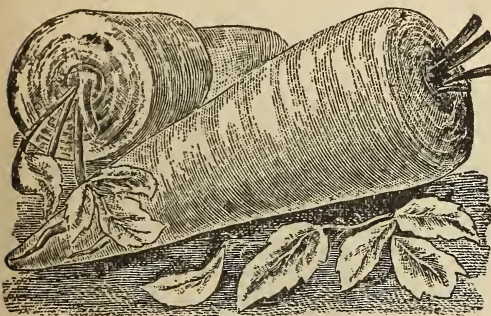
CHAMPION, MOSS CURLED—A compact grower, finely cut and much curled variety of bright green color. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00.

Parsnips

CULTURE—Parsnips do the best in rich, deep soil, but will make good roots on any soil which is deep and mellow and moderately rich. As the seed is sometimes slow to germinate, it should be sown as early as possible.

As the average deliveries made by the growers will not exceed fifty per cent on their contracts, it is evident that there will be a general shortage.

IMPROVED GUERNSEY (Improved Half-Long)—A greatly improved and wonderfully fine strain of Guernsey parsnip. It is a very heavy cropper. The roots are very smooth, the flesh is finely grained and of most excellent quality.



LONG SMOOTH OR HOLLOW CROWN (Abbott's Improved Long Sugar or Long White Dutch Parsnip)—A great cropper; tender, sugary and considered the best for general cultivation. Parsnips are improved by remaining exposed to the frost.

Both varieties of parsnips: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25.

PEANUTS

The peanut thrives and produces best on a light, sandy, fertile soil with a good clay subsoil. It possesses a long tap-root which extends deep into the earth. Lb., 35c, postpaid.

Peas, Garden

Our peas are grown in the Inland Empire under our own supervision and have been very carefully rogued by us, thus insuring peas of the very best possible type. They have been grown by men of experience and in the very choicest places of the Inland Empire.

We want to lay special emphasis on Gradus, Telephone, Potlatch and Laxtonian. These are all large podded, exceptionally fine flavored, and good producers. We have spent time and money in bringing these varieties to their present high state of perfection.

It can be truthfully said that in the states of Washington, Idaho and Montana there were more acreage grown in peas this year than any former year, but unfortunately the yield was much below former years. Owing to our large acreage we will have enough to supply all reasonable demands with exception of telephone, but would advise the placing of orders early, not only for peas but, in fact, for all garden seeds.

Extra Early

ALASKA OR EARLIEST OF ALL—Earliest and best of all the blue smooth varieties. A smooth, blue pea, which in evenness of growth of vine and early maturity of pods is unequaled by any other pea. Vines two to two and one-half feet high. A great favorite with our market gardeners for fall and early spring planting. Lb., 25c, postage paid. At purchaser's expense, Lb., 15c; 5 lbs., 75c; 10 lbs., \$1.40; 25 lbs., \$3.40; 50 lbs., \$6.50; 100 lbs., \$12.50.

AMERICAN WONDER—The earliest and best of the wrinkled sort. A great favorite for family use. Has stout, branching vines about 10 or 12 inches high, and covered with well-filled pods, containing sweet, tender and well-flavored peas.

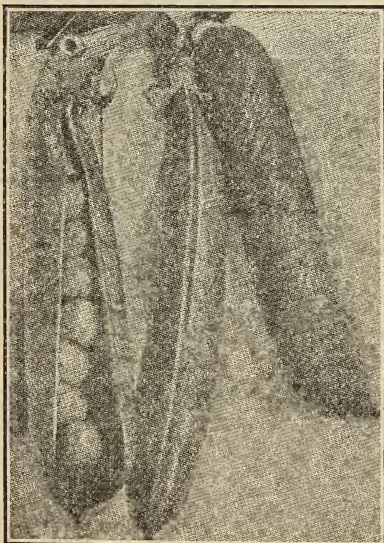
LITTLE GEM, McCLEAN'S—The vines grow about 18 inches in length, producing well-filled pods of from 2½ to 3 inches long. The peas are green, wrinkled, sweet and delicious.

NOTT'S EXCELSIOR—The best early dwarf pea. Very compact growth. Vines about 1 foot high. Pods 3 inches in length, containing from 6 to 9 large peas, which are of a very fine quality and sweet flavored.

SURPRISE OR ECLIPSE—The earliest wrinkled pea grown, being only two or three days later than the Early Alaska. Vines grow from 18 to 24 inches high and are very productive. Pods of medium size and well filled with peas of most excellent flavor.

American Wonder, Little Gem, Nott's Excelsior and Surprise. Lb., 35c, postpaid. At purchaser's expense, lb., 25c; 5 lbs., \$1.25; 10 lbs., \$2.25; 25 lbs., \$5.00; 50 lbs., \$9.50; 100 lbs., \$18.00.

Second Early

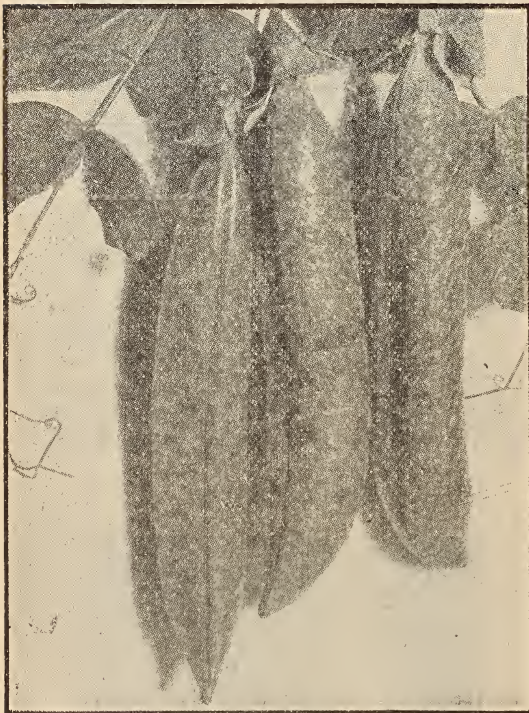


GRADUS

GRADUS—This bears pods of large size, and combines quality with earliness. It is very hardy, can be planted fully as early as the smooth peas; grows vigorously and healthy; pods are large, well filled, containing 7 to 9 peas; vines two and a half feet in height; very prolific. The quality and flavor are delicious and the peas remain tender and sweet for a long time.

PEAS—Continued

LAXTONIAN—A new variety of splendid quality and unusual productiveness. Vines grow from 15 to 18 inches high, pods from 4 to 4½ inches in length. Pods are of a deep bluish green, well filled and contain from 8 to 10 large peas, which are of a superior flavor, sweet and delicious. We highly recommend this new pea and believe you will not be disappointed if you give it a trial.



Potlatch

POTLATCH—A fine, new variety of great merit. The vines are vigorous, growing 15 to 18 inches high, with dark green foliage, often measuring six inches in length with 8 to 9 enormous peas in a pod. The vines are sturdy and the pods are borne in pairs. It is wonderfully productive. The peas are of very fine quality, being sweet, rich and delicious.

TELEPHONE, DWARF—Produces handsome long pods. A great favorite with our market gardeners. Immensely productive, of the finest quality and excellent sugary flavor; vines very strong, growing from 18 to 24 inches high. The pods are of large size, filled with large, delicious peas.

Gradus—Laxtonian, Potlatch and Telephone: Lb., 35c, postpaid. At purchaser's expense, Lb., 25c; 5 lbs., \$1.25; 10 lbs., \$2.40; 25 lbs., \$5.50; 50 lbs., \$10.50; 100 lbs., \$20.00.

Late

MELTING SUGAR—The kind that has sweet, broad pods, and are used the same way as snap and string beans. This is the most popular of the edible podded varieties. The pods are large, straight, very tender and finely flavored. Vines medium height. Lb., 35c, postpaid.

STRATAGEM—One of the best of the large, podded peas; the pods are of immense size, measuring 4½ to 5 inches, filled with large, dark green, wrinkled peas of the finest quality. Vine grows to a height of about 18 inches.

Lb., 35c, postpaid. At purchaser's expense, lb., 30c; 5 lbs., \$1.25; 10 lbs., \$2.20; 25 lbs., \$5.00; 50 lbs., \$9.50; 100 lbs., \$18.00.

See page 50 for Canadian, Bangallas and Cow Peas.

Peppers

CULTURE—Sow the seeds early in hotbeds, or later, when the weather becomes warm, in open beds; when two or three inches high, transplant to a warm, mellow soil, in rows eighteen inches apart at one foot apart in the row.

Reports have been received by us from our grower that peppers are practically a failure and deliveries uncertain.



CHINESE GIANT—An enormous fruiting variety, double the size of Ruby King, averaging 12 to 15 inches in circumference. Notwithstanding its large size, it is very early and very prolific. Plants are healthy, well branched, about two feet high and carry an enormous load of fruit, often having the appearance of being bunched together. Flesh is thick, tender, mild and sweet, and is unexcelled for salad or stuffed as mangoes. They can be sliced and eaten like tomatoes. When ripe the peppers are a rich, glossy scarlet, making them of unusually fine appearance. Pkt., 10c; oz., 75c; 2 oz., \$1.25; ¼ lb., \$2.25.

LARGE BELL OR BULL NOSE—Sometimes called Sweet Mountain. The plants are vigorous, about two feet high, compact and very productive, ripening their crop uniformly and early. The fruits are large, growing from three to four inches in length, with thick, mild flesh of excellent quality for use in salads and mangoes, or stuffed peppers. The color is deep green when fruit is young, bright crimson when ripe. Pkt., 5c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.50.

LONG RED CAYENNE—Brilliant coral-red pods, three or four inches long, and a prolific bearer; very pungent and used very largely with pickles when green. Pkt., 5c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.50.

RED CHILI—Small, bright red peppers, very hot and pungent, and generally used for making "pepper sauce"; very prolific. Pkt., 5c; oz., 60c; 2 oz., 90c; ¼ lb., \$1.50.

PEPPERS—Continued

RUBY KING—Very large and attractive. The plants are about two and one-half feet high, vigorous, compact and productive. The fruits are often four to four and one-half inches long and of deep green color when young, bright red when ripe. The flesh is thick and mild flavored. One of the best varieties for mangoes or stuffed peppers. Pkt., 5c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.50.

Pumpkins

CULTURE—Sow in good soil, when the ground has become warm, in hills eight or ten feet apart each way, or in fields of corn about every fourth hill.

BIG TOM—This is one of the largest, most uniform growing and productive varieties known.



Connecticut Field

CONNECTICUT FIELD—A productive, large, orange-colored field pumpkin, usually grown for stock feeding, but it makes good pies.

KENTUCKY FIELD OR LARGE CHEESE—Fruit flattened, the diameter being two or three times more than the length. Skin mottled light green and yellow, changing to rich cream color as it matures; flesh tender and of excellent quality.

MAMMOTH PRIZE—The largest pumpkin grown; has attained a weight of 235 pounds. If you wish to see just how large a pumpkin can grow, try the Mammoth Prize. The quality is excellent. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25. At purchaser's expense, lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.



Early Sugar

EARLY SUGAR—Fine-grained, sweet and prolific; small in size, but one of the best for pies. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 35c; ½ lb., 60c; lb., \$1.00. At purchaser's expense, lb., 90c; 5 lbs., \$4.25; 10 lbs., \$7.50.

All pumpkins not otherwise quoted: Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 30c; ½ lb., 50c; lb., 90c; At purchaser's expense, lb., 80c; 5 lbs., \$3.75; 10 lbs., \$7.00.

RADISHES

THE SECRET IN GROWING GOOD RADISHES consists chiefly in the observance on the part of the grower of three points. First, they should be grown on light soil. Second, they should be given plenty of water; and last, but not by any means least, the right kind of seed should be sown. Radishes grow very quickly, and if not supplied with plenty of water are apt to be pithy.

As a rule radishes can always be depended upon for producing a fair crop, but this year all records have been broken and the yield of these is less than any other vegetable seeds, as quite a number of varieties are failures, and other varieties have only yielded ten to fifteen per cent of a normal crop.

Turnip-Rooted, Early

CRIMSON GIANT—The largest early scarlet turnip-shaped radish. A very early radish, double the size of any of the other early turnip-shaped type, but notwithstanding its immense size, does not get hollow and pithy. The flesh is a sparkling white, solid, crisp and juicy, and of the mildest flavor. Excellent for both forcing and open ground.

SCARLET GLOBE—Similar in form to the Scarlet Turnip-Rooted, but much darker in color; flesh white, very crisp and tender, top small, well adapted for growing in frames.



SCARLET TURNIP WHITE-TIPPED RADISH.

SCARLET, WHITE TIPPED—The favorite variety for outdoor cultivation; medium size, uniform shape; color bright scarlet, with white tip, which makes it most attractive. It grows quickly; flesh white, crisp and of the best quality.

The three foregoing varieties: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 45c; ½ lb., 80c; lb., \$1.50.

Olive Shaped, Medium Early

FRENCH BREAKFAST, OR HALF-LONG WHITE TIPPED—Medium size, of quick growth, crisp and tender; terminates more abruptly than the Half-Long Scarlet, lower end of tap root white. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.00; lb., \$1.75.

RADISHES—Continued

Long, Late

CHARTIER, IMPROVED—Roots long, tapering rather abruptly and attaining a very large size. Of rapid growth, it is soon ready for the table, remaining crisp and tender until fully grown. Color, scarlet above, shading into white at the tip. Flesh white and mild flavored.

ICICLE, WHITE—The finest of the pure white varieties. They are long and slender and clear, pure white, making them very attractive when on sale and on the table. It is crisp and tender both when young and until it attains a large size, thus remaining in condition for use for considerable time. Roots grow four inches in length and half an inch in diameter; they retain their crispness and fresh mild flavor until fully six inches long and an inch in diameter.

Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., 90c; 1 lb., \$1.75.



White Icicle

LONG SCARLET, RED—The leading variety either for the family or market garden. From six to eight inches long, standing nearly half above the ground; bright scarlet, smooth, crisp, tender and mild.

STRASBURG, WHITE—Of handsome, oblong, tapering shape, both skin and flesh being pure white. The flesh is firm, brittle and tender and retains its crispness even if old and large. Excellent for summer use. Very popular because it remains fit for use a long time and does not get pithy. Sometimes called the Sandwich radish.

Chartier, Long Scarlet and Strasburg: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 80c; 1 lb., \$1.50.

Winter

BLACK SPANISH, LONG—Very hardy and good for winter use. Will keep good all winter. The roots, which present a rusty, black appearance, are large, firm and not liable to become pithy.

CHINA ROSE—One of the best fall and winter varieties. Half-long shape; upper part bright crimson, shading to white. Flesh white, firm, tender and of superior quality.

CALIFORNIA MAMMOTH, OR WHITE CHINA—Very large and cylindrical, terminating abruptly with little tap-root; mild and tender, and keeps well all winter. The skin and flesh are of a transparent white.

All varieties of winter radishes: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 45c; ½ lb., 80c; lb., \$1.50.

RHUBARB OR PIEPLANT



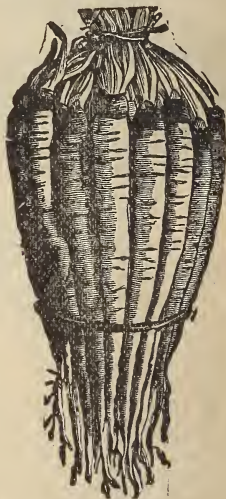
CULTURE—Sow in drills an inch deep, and thin out the plants to six inches apart. Transplant the young plants, setting them four to six feet apart each way. The stalks should not be plucked until the second year, and the plant never allowed to exhaust itself by running to seed.

VICTORIA OR MAMMOTH—Very large; the finest cooking variety. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 70c; lb., \$1.25.

SALSIFY OR
VEGETABLE
OYSTER

CULTURE—Sow early and quite deep, giving the general culture recommended for parsnips. The roots are perfectly hardy, and may remain out all winter, but should be dug early in the spring, as they deteriorate rapidly after growth commences.

MAMMOTH SANDWICH ISLAND—Of superior Quality. Pure white. Very meaty and of fine flavor. Grows uniformly large. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; lb., \$2.25.



SPINACH

It might seem to some that the item of Spinach is insignificant. We have, however, been so careful in selecting our seed and have obtained such good results for our growers by our careful selection that we had contracted for 3000 pounds to supply our trade this season. This comes from Holland, the natural home of Spinach.



CULTURE—It is one of the most easily managed of all vegetables, requiring but little cul-

SPINACH—Continued

ture. For spring and summer use sow broadcast or in drills as early as possible. Then sow at intervals for successive crops. For very early spring use it is sometimes sown in August or September, protecting it slightly during the winter.

Our contract for Spinach seed was placed in Europe, but it is doubtful if we will receive any from that source. We have secured a limited supply of home grown seed. We advise gardeners to secure their supply as soon as possible as there is a general shortage.

LONG STANDING—An improved variety, slow going to seed, and perhaps the best for general use.

THICK LEAVED, IMPROVED—A variety which grows very rapidly, forming a cluster of large, very thick, slightly savoyed leaves of fine color and quality when cooked. Best for market gardeners.

VICTORIA—Dark, large green leaves, of good quality. A great yielder.

WINTER, PRICKLY—A very hardy variety; will withstand the cold of winter. Seed prickly. Leaves long, pointed, and of good quality.

All varieties of spinach: Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.00; lb., \$1.75.

Squash

CULTURE—Delay sowing until the soil has become warm. The general principles of culture are the same as those given for cucumbers and melons. The summer varieties should be planted four to six feet apart each way, and the winter sorts eight to ten. Three plants are sufficient to a hill.

Summer



CROOKNECK, EARLY YELLOW—An early prolific kind having a solid curved neck; the skin is yellow, thin, hard and very warty, flesh tender and of good quality.

BUSH SCALLOP, EARLY WHITE—This is the well known, very early, somewhat flattened, scalloped bush squash of medium size. The color is

creamy white with comparatively smooth surface. The vines are vigorous and very productive. This variety is also known as Patty Pan or Cymling.

BUSH SCALLOP, YELLOW MAMMOTH—An early, flat, scallop-shaped variety; color yellow; flesh pale yellow and well flavored; very productive.

The foregoing four varieties of squash: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25. At purchaser's expense, lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

ENGLISH VEGETABLE MARROW—A favorite English variety, bearing freely oblong, dull yellow fruit 10 to 15 inches in length by 4 to 5 inches in diameter; flesh before ripe, tender, marrowy and delicious. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; lb., \$1.00.

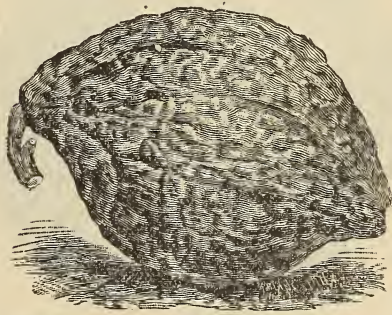
Winter

BOSTON MARROW—This is a very productive fall and winter variety of medium to large size, oval shape, and thin skin. It is much used for canning and making pies. The fruits when

ripe are bright orange with a shading of light cream color. The flesh is of rich salmon-yellow color, fine grained and of excellent flavor, but not as dry as the Hubbard. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 35c; ½ lb., 60c; lb., \$1.00. At purchaser's expense, lb., 90c; 5 lbs., \$4.25; 10 lbs., \$8.00.

CHILI MAMMOTH—Attains an enormous size, often reaching a weight of 200 pounds, and not infrequently weighs 300 pounds. Despite its size, its flesh is rich and fine flavored. It is especially desirable for stock feeding and exhibition purposes. For feeding cows it is best to cut them up, mixing with ground feed. As the yield an acre will run from 8 to 15 tons, it will thus produce a very cheap and nutritious feed. In feeding to swine, all that is necessary is to break the squashes open.

DELICIOUS—The increasing demand for this squash shows conclusively that its high quality is very generally known and appreciated. Many prefer it to Hubbard, so long regarded as the standard of excellence. Delicious is a fall and winter variety. Medium size. The fruits are moderately hard, usually dark green, but sometimes lighter in color and mottled, and are without any hard shell. The flesh is thick, very fine grained and bright yellow in color. It is considered by many to be the best for markets where quality is appreciated as well as very desirable for home garden.



HUBBARD, CHICAGO WARTY—One of the best of the winter squashes. The vines are vigorous and very productive. The fruits are large, heavy and warty, with a very hard shell. The skin is uniformly dark bronze green. The flesh is bright orange-yellow, fine grained, thick, dry and richly flavored. This squash can be kept in good condition until spring. It is esteemed by many to be as good baked as the sweet potato. Our stock of this standard home garden and market variety is carefully selected in regard to quality of the flesh and color of the shell.

HUBBARD GOLDEN—The vines of this variety are vigorous and very productive. The fruits are of medium size, weighing from six to eight pounds and in shape are like the Hubbard, although in condition for use decidedly earlier. They are wonderfully long keepers and can be held over in good condition for spring use. The shell is moderately warty, hard, strong and of a beautiful orange-red color, except for a bit of olive-green on the blossom end. The flesh is deep-orange, dry, fine grained and richly flavored. A very superior table variety.

PIKE'S PEAK—Large oval, tapering at the blossom end. Skin dark olive-green; light golden flesh of excellent quality. Vines vigorous and very productive.

Winter squash, if not otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; lb., \$1.50. At purchaser's expense, lb., \$1.40; 5 lbs., \$6.75; 10 lbs., \$12.50.

Tomatoes

CULTURE—Sow early in hotbeds and as soon as they have four leaves transplant into shallow boxes. Harden off and set out as soon as danger of frost is over.

ATLANTIC PRIZE (Extra Early)—A distinctly early variety of good size and smooth surface. Many of the objections to the usual early kinds, such as undersize, deep corrugations and rough skin, are overcome in the Atlantic Prize. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.35; lb., \$2.50.

DWARF CHAMPION, OR TREE TOMATO—The plant is dwarf and compact; fruit medium size, rich, glossy red, smooth and solid; fine for private gardens. Pkt., 5c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.00.

CORELESS—A new bright red tomato of the globe-shaped type, almost round. It is a strong grower and a heavy cropper, a grand slicing variety and ripens all over and through. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.90; lb., \$3.50.



Earliana

EARLIANA, SPARKS'—The earliest large and smooth tomato. The most perfect of all tomatoes. Of large, uniform size and beautiful red color. Quality almost beyond praise. A most vigorous grower and heavy bearer, continuing until frost. Spark's Earliana is as near seedless as any tomato, giving but 12 to 15 pounds of seed to the acre, while other varieties yield from 75 to 100 pounds to the acre. Pkt., 5c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.00.

CHALK'S EARLY JEWEL—The large, handsome fruits are very solid and deep through, being almost round or ball shaped. Color is brightest scarlet, ripening right up to the stem without any cracks. The foliage is rather sparse and open, admitting the sunlight to the center of each plant, so that all the fruits are thoroughly ripened. Pkt., 5c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.00.

MOORE'S EARLY—This variety is of late introduction and is claimed by the originator to be earlier than Earliana; it is said to be the earliest tomato grown. Medium size with a sparse vine, and sets its fruit very early. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.90; lb., \$3.50.

STONE—Fine for main crop; very large; color bright scarlet; very smooth, ripening up to the stem without a crack; exceedingly solid and firm fleshed; an excellent shipper; quality the very best. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.35; lb., \$2.50.

Small Varieties

GROUND CHERRY OR HUSK—Plants of low, spreading growth and immensely productive. The small yellow fruits are each enclosed in a husk or covering. When ripe the fruits are an inch in diameter, bright yellow and of very sweet flavor; highly esteemed for preserving. Pkt., 5c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00.

PEACH—This is a distinct and very attractive tomato for preserving, eating from the hand or table. Fruit resembles a peach in shape, size and color. Flesh tender and of good flavor. Pkt., 5c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00.

YELLOW PEAR-SHAPED—A small-fruited variety, which is golden-yellow. It is very useful for salads. Pkt., 5c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00.

Turnips

The value of Turnips and Ruta Bagas for feeding stock in fall and winter is not fully appreciated, as they are much liked by all kinds of stock and serve to keep them in good condition. We recommend that farmers increase their sowings largely, for we are sure the crop will prove remunerative for stock feeding as well as for table use when the roots are comparatively small.

Both of these wholesome vegetables are very easily affected in their form and flavor by soil, climate, and mode of culture. The turnip plant is distinguished from the ruta бага by its rougher leaves; the root usually matures earlier and is smoother and more symmetrical.

CULTURE—For early use sow as soon as the ground can be worked, in drills 15 to 18 inches apart, and half an inch deep. For winter use, sow during July, as early sowings are unfit for winter use.

As the main supply of turnip seed has been received from Europe and as it is doubtful if any will be received from that source, owing to a general failure of the crop, difficulty in securing shipment and probability of embargoes by the European governments, it follows that stocks are very short.

ABERDEEN, YELLOW—Round, medium size, light yellow; strained with purple on top; produces a large crop; flesh very firm, tender and sweet.

AMBER GLOBE—One of the best yellow fleshed varieties, grown usually for stock feeding. The roots are of large size and of globular shape. The skin is clear yellow except the top which is tinged with green. The flesh is light yellow, fine grained and sweet. The variety keeps well and is a good cropper.

COWHORN—Sometimes called Long White. Is slightly crooked, pure white, except a little shade of green at the top. Grows half out of the ground and is of very rapid growth; is delicate and well flavored. An immense yielder.

EARLY FLAT WHITE DUTCH, STRAPPED LEAVES—A leading white-fleshed variety, and one of the best, either for family, market garden or field crop; of medium size and produces a large crop. The flesh is firm, but tender, and of a superior rich, buttery flavor.

MILAN, WHITE—The earliest of all. The earliest turnip and the best quality in its class. A fine, snowy-white color. The skin is so smooth and neat as to seem polished. The foliage is short. Size medium, and the flesh is white, tender and smooth grained. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 65c; ½ lb., \$1.10; lb., \$2.00.

TURNIPS—Continued

ORANGE JELLY OR GOLDEN BALL—A distinct variety, one of the most delicately flavored of the yellow fleshed turnips. The tops are small. The roots are medium sized, round, very smooth and with deeper yellow skin than most of this class. The flesh is firm, crisp and of most excellent quality. The roots are in best condition for table use when about three inches in diameter. This variety is of quick growth, adapted to spring as well as fall planting, and keeps exceptionally well. Known also as Robertson's Golden Ball.

POMERANIAN WHITE GLOBE, STRAPPED LEAVED—This is a free growing, rough leaved sort; perfect globe shape; skin white and smooth; leaves dark green.



PURPLE TOP, STRAPPED LEAVED, EARLY—One of the best and most universally grown; small, erect top, round, flat; purplish red above; white underneath; flesh firm, but very tender and sweet.

PURPLE TOP WHITE GLOBE—A perfect globe shape, with smooth, white skin; flesh pure white, firm and crisp. Purple above ground.

SNOWBALL—A perfectly globe-shaped, white skinned turnip. The flesh is fine grained, firm and of very delicate flavor. Very early.

WHITE EGG—A quick growing egg-shaped, perfectly smooth, pure white variety, with small top and rough leaves. It grows half out of the ground; the flesh is very sweet, firm and mild.

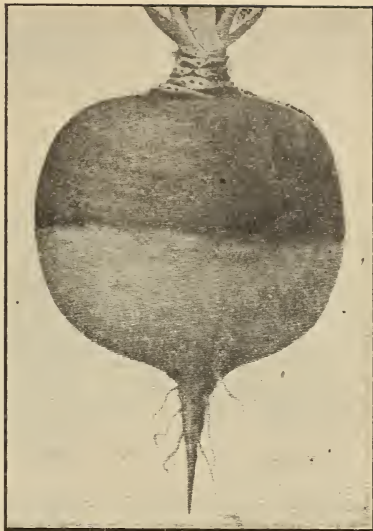
Aberdeen, Cowhorn, Orange Jelly, Pomeranian White Globe, Snowball and White Egg varieties: 1 oz. 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 90c; lb., \$1.75. At purchaser's expense, lb., \$1.65; 5 lbs., \$8.00; 10 lbs., \$15.00.

Amber Globe, White Dutch, Purple Top Strapped Leaved and Purple Top White Globe: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 45c; ½ lb., 80c; lb., \$1.50. At purchaser's expense, lb., \$1.40; 5 lbs., \$6.50; 10 lbs., \$12.50.

Rutabagas or Swedes

For feeding stock in fall and winter there is nothing superior to rutabagas, as they are much liked by all kinds of stock and serve to keep them in good condition. We desire to call special attention to an improved Bangholm. If you have not used this, give it a trial and we believe you will be more than pleased.

(See note on turnips).



Danish Purple Top.

BANGHOLM PAJBBERG (Improved Danish Purple Top)—This variety was awarded a first-class certificate by the Danish government for heaviest yield, having given 49 tons per acre.

This purple top sort is excellent both in shape and quality. The roots are of large size, slightly tankard shaped, with small neck and few or no side roots. The skin is yellow with purple top. The flesh is yellow, sweet and solid. Crop failure.

SWEET RUSSIAN OR WHITE—Hardy, easily grown, large, and yields as much as the best yellow kinds; flesh free-grained and solid, but tender and well flavored; good for stock and desirable for the table.

YELLOW SWEDE OR RUTABAGA—Shape oblong, dull reddish color above ground, but yellow underneath; is harder than the common turnip and will keep till spring.

Sweet Russian and Yellow Swede Rutabagas: Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.10; 1 lb., \$2.00.

Herbs

ANISE—Used for cordials, garnishing and flavoring. Pkt., 5c; oz., 15c.

BALM—Leaves used for making pleasant beverages. Pkt., 5c; oz., 25c.

BASIL—Sweet; the leaves are used in flavoring soups, etc. Pkt., 5c; oz., 15c.

CARAWAY—Grown for seeds; used for flavoring. Pkt., 5c; oz., 15c.

CATNIP OR CATMINT—Leaves and young shoots for seasoning. Pkt., 5c; oz., 50c.

CORIANDER—Seeds used in the manufacture of liquors, in confectionery and culinary preparations. Pkt., 5c; oz., 15c; ¼ lb., 50c.

DILL—Seeds have an aromatic odor and pungent taste. Pkt., 5c; oz., 15c; ¼ lb., 40c.

FENNEL—Sweet; ornamental; when boiled used in fish sauce. Pkt., 5c; oz., 15c.

HOREHOUND—For seasoning and cough remedy. Pkt., 5c; oz., 25c.

LAVENDER—An aromatic, medicinal herb. Pkt., 5c; oz., 25c.

MARJORAM—Sweet; leaves and shoots used for seasoning. Pkt., 5c; oz., 20c.

HERBS—Continued

SAGE—One of the most extensively used herbs for seasoning; hardy perennial about fifteen to eighteen inches high. Plant very branching; flowers usually blue, sometimes pink or white; leaves grayish green, oval, wrinkled. Pkt., 5c; oz., 20c; ¼ lb., 60c.

SUMMER SAVORY—Used for flavoring soups. Pkt., 5c; oz., 20c.

THYME—Leaves and young shoots used for seasoning; a tea is made from leaves, a remedy for headache. Pkt., 5c; oz., 40c.

Flower Seeds

AGROCLINUM—A very pretty, half hardy annual producing white and rose colored, double daisy-like flowers, about one and one-half inches in diameter. Each flower-head is borne singly on a very long stem; leaves small, narrow, alternate. These are "Immortelles" so desirable for wreaths and winter bouquets.

Sow the seed in open ground early in spring, preferably in light, well prepared soil, and cover with one-fourth inch of fine soil firmly pressed down. Thin the young plants to four inches apart. Height fifteen inches. Mixed. Pkt., 5c; ¼ oz., 25c.

AGERATUM—Floss Flower (A)—One of the most useful and profuse-blooming plants known. A beautiful, hardy annual of neat bushy habit. The attractive feathery flowers borne in dense clusters are very useful for bouquets. Very desirable for outdoor bedding and borders, being covered with bloom nearly all summer. Mixed. Pkt., 5c; ¼ oz., 15c.

MEXICANUM COERULEUM—Blue. Pkt., 5c.

MEXICANUM GRANDIFLORUM—White. Pkt., 5c.

ALYSSUM SWEET LITTLE GEM (A)—The plants are very dwarf and spreading; they grow only three to four inches high, and each plant completely covers a circular space 12 to 20 inches in diameter. They soon become one mass of white, remaining in full bloom from spring to fall. Pkt., 5c; oz., 50c.

AMARANTHUS (A)—Brilliant-foliated annuals, growing from three to five feet high, bearing curious racemes of flowers. Useful in borders of tall plants or for the center of large beds. They thrive best in a hot, sunny location, not too rich soil, and given sufficient room to develop their full beauty.

CAUDATUS (Love Lies Bleeding)—Blood red; drooping. Mixed pkt., 5c.

ANEMONE (Coronaria) (P) (Wind Flower)—Among the earliest of spring flowers. They are about two inches across, with blue stamens, resemble the single poppy in shape and come in several shades of color. The foliage is deeply cut. A most valuable class of hardy plants suitable for edging, massing or single specimens. They grow rapidly two to three feet and are profuse in bloom, gaining strength and beauty each year. Single, Mixed Pkt., 5c.

ARABIS OR ROCK CRESS (P)—The earliest, prettiest spring flower. The spreading tufts are covered with a sheet of pure white flowers as soon as the snow disappears. Unequaled for rookeries or edgings; withstands the drought and is always neat. Pkt., 10c.

ASTERS

There is no more beautiful flower than the Aster, and there is none with a greater diversity of colors and sizes. These have been very much improved, so that today the largest and most beautiful resembles a fine Chrysanthemum more than it does an old-fashioned Aster.

Our stock has been selected with the greatest care, so that we are able to offer varieties that will undoubtedly please and delight anyone giving them reasonable care. You will notice that they are 10c and 15c per package. As a special we offer any 12 packages for one dollar.

COMET, GIANT BRANCHING, OR OSTRICH PLUME (A)—Are thrifty growers, 15 inches high, bearing immense long stemmed flowers, composed of long, wavy petals, like Japanese Chrysanthemums. Crimson, Dark Blue, Light Blue, Rose, White and mixed. Pkt., 10c; ¼ oz., 50c.



Giant Comet or Ostrich Plume

"CREGO GIANT" (A)—The "Giant" Crego is distinct in every way, and its magnificent flowers, often growing to 6 inches in diameter, are fully equal to Chrysanthemums. They have rare beauty of form and brilliant coloring, are very vigorous, and free flowering; blooms are borne on long stems. White Pink Rose, Crimson, Lavender and mixed Pkt., 15c; ¼ oz., 75c.



Hohenzollern Aster

FLOWER SEEDS—Continued

HOHENZOLLERN (A)—The finest type of the Giant Comet, or Ostrich Feather type of Asters. Much larger than the Giant Comet, the petals longer and more curled and twisted, and produced in greater abundance. Borne on long stems, which makes them cut flowers par excellence. White, Light Blue, Dark Blue, Pink, Rose, Lavender, Yellow, Crimson and mixed. Pkt., 10c; ¼ oz., 50c.

ASTERMUM—(What Is It?)—A strain of Comet Asters which on account of their immense size and chrysanthemum-like appearance have appropriately been named Astermums. They were first exhibited at the convention of American Florists in 1912 and attracted great attention. The plants grow about two feet high with long, strong stems. Most of the flowers are five inches across. Mixed Pkt., 15c; 6 for 50c.

BACHELOR'S BUTTON, OR CENTAUREA CYANUS (A)—A hardy annual, easily cultivated. Has recently been greatly improved, and now produces handsome flowers of a great variety of rich colors. Borne on tall, branching stems, with but little foliage. Striking and handsome. Mixed Pkt., 5c; oz., 25c.

BALSAM OR LADY'S SLIPPER (A)—An old and favorite garden flower, producing its gorgeous masses of beautiful brilliant-colored double flowers in the greatest profusion; of easy culture; succeeds in a good rich soil; tender annuals; 2 feet. Start the seed indoors in April or sow out of doors in May. To grow fine specimens they should not be closer than 18 inches apart. Double Camellia-Flowered—Mixed. The largest double variety. Pkt., 5c.

BEGONIAS (P)—Begonias are among the most beautiful of flowering plants, especially adapted to pot culture. Mixed, Pkt., 25c.

CALEUNDULA (POT MARIGOLD) (A)—Very hardy annual, one foot high, blooming freely practically the whole year round. Is of the easiest culture and is desirable for rather inferior soils, where less sturdy flowers do not thrive. A medicinal extract resembling arnica is made from the flowers. Pkt., 5c; oz., 25c.

CALLIOPSIS (A)—A quick growing annual. The flowers are placed on graceful wavy stems and in color run through all the shades of red and yellow; foliage dainty; useful combined with other flowers. Mixed, Pkt., 5c.

CANDYTUFT — (Iberis)—Showy, branching plants twelve to fifteen inches high and bearing in profusion terminal clusters of beautiful single cruciform flowers in a wide range of colors. Considered indispensable for cutting and very effective in beds, masses or rockeries.

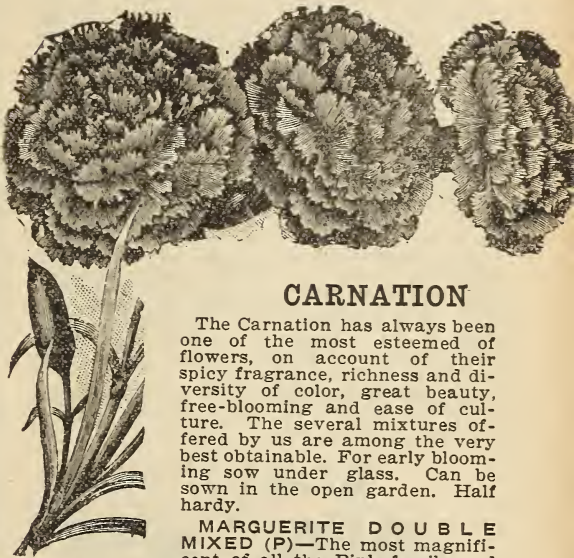
Perennial, White, Pkt., 5c; oz., 25c. Empress, White, Pkt., 10c; oz., 50c.

CANNA FRENCH (MIXED) (P)—Ornamental tropical-looking plants of easy culture; large and beautiful flowers. Hardy perennial. Pkt., 10c.



Canterbury Bells

CANTERBURY BELLS (*Campanula Calycanthemata*) (Cup and Saucer) (B)—Produces beautiful single flowers three inches in length with saucers three to four inches in diameter. The plants form pyramids of bloom bearing from 100 to 200 of these exquisite blossoms for weeks during the early summer. A hardy biennial 2½ feet high, flowering the second season from seed. White, Blue, Pink. Pkt., 10c; ¼ oz., 60c; mixed, all colors, pkt., 5c; ¼ oz., 30c.



CARNATION

The Carnation has always been one of the most esteemed of flowers, on account of their spicy fragrance, richness and diversity of color, great beauty, free-blooming and ease of culture. The several mixtures offered by us are among the very best obtainable. For early blooming sow under glass. Can be sown in the open garden. Half hardy.

MARGUERITE DOUBLE MIXED (P)—The most magnificent of all the Pink family and

general favorite for their delicious fragrance and richness of color. Pkt., 10c; ¼ oz., 50c.

GIANT MALMAISON (P)—An exceedingly fine mixture. Pkt., 25c.

VIENNA DWARF MIXED (P)—Produces double, sweet-scented flowers, in a great variety of colors and in great profusion. Pkt., 15c; ¼ oz., 75c.

CENTAUREAS

Centureas embrace some foliage plants but are more generally known for their hardy flowering annuals which include some of our most graceful and showy garden flowers that have long been favorites for cutting. The tall slender straight or slightly branching plants with narrow leaves thrive well in common garden soil. They produce bright colored single and double heads of flowers on long graceful stems and some sorts are fragrant.

IMPERIALIS ROYAL SWEET SULTAN (A)—This beautiful class is undoubtedly the finest of all Sweet Sultans for cut flower purposes. The beautiful sweet-scented, artistic-shaped flowers are borne on long, strong stems, and when cut will stand for several days in good condition. It is best, in this latitude, to sow very early in the spring, so that they may perfect their flowers before very hot weather arrives. Mixed, pkt., 10c.

CANDIDISSIMA OR WHITE LEAVED DUSTY MILLER (A)—Silvery white; leaves broadly cut. Fine for bedding, vases, hanging baskets and pots; also extensively used for margins. As an edging to a bed of dark-leaved Cannas or Scarlet Sage these are particularly effective. Sow the seed early indoors, and transplant in May. Pkt., 15c.

FLOWER SEEDS—Continued

CELOSIA (COXCOMB) (A)—Free blooming annuals, growing best in light soil not too rich. They make splendid border plants and are attractive for pots. Finest mixed, pkt., 10c.

CERASTIUM, TOMENTOSUM (Snow In Summer) (P)—A very pretty dwarf, white-leaved edging plant, bearing small white flowers; hardy. Pkt., 15c.

CHRYSANTHEMUMS (A)—The Annual Chrysanthemums are rapidly coming to the front, both as greenhouse and garden plants, as they have recently been greatly improved. Choice mixed, pkt., 5c; $\frac{1}{4}$ oz., 15c. Fancy mixed, Pkt., 10c; $\frac{1}{4}$ oz., 25c. Perennial mixed, Pkt., 10c.

CLARKIA (A)—Handsome, free flowering annuals of easy cultivation. Produce a fine effect massed in beds. Flowers are very bright and attractive. Double mixed, pkt., 5c; $\frac{1}{2}$ oz., 25c.

COLEUS (P)—Magnificent ornamental foliage plants for house or garden culture. The leaves are of many shapes, and the shades and colors are of remarkable beauty. Finest Hybrids Mixed, extra choice, pkt., 25c.

COLUMBINE OR AQUILEGA (P)—A delightful hardy perennial, growing about two feet high, and splendid for permanent beds and borders. Thrives in partial shade and under the spray of a fountain or other moist location. Bears exquisite blossoms of clear blue, white, rose, purple and striped. Single mixed, pkt., 10c. Double mixed, pkt., 10c.

COREOPSIS (LANCELATA) (P)—Blossoms the first year; flower rich yellow, single; very fine for cutting. Pkt., 10c.



Cosmos

COSMOS—Very effective for autumn flowering in broad masses or backgrounds. A hardy and rapid grower, forming bush-like plants with feathery green foliage, four feet high, covered with large flowers somewhat resembling the single dahlia. They are gracefully poised on long stems and very useful for decorative purposes. Extra early, mixed, pkt., 10c; $\frac{1}{4}$ oz., 25c. Later varieties, mixed pkt., 10c; $\frac{1}{4}$ oz., 25c.

DAHLIA (P)—But few people know Dahlies can be raised from seed and will bloom the first year. The seeds germinate as easily and certainly as Zinnias, and from the very first development are strong and sturdy little plants.

Plant them in a shallow box or pan early in March or April, transplant them carefully as their growth demands. When all danger from frost is over plant them in the bed or border in the garden, and from then on they will prove no more trouble than if the tubers had been used instead of seed. Double Mixed, pkt., 10c; $\frac{1}{4}$ oz., 50c. Single Mixed, pkt., 10c; $\frac{1}{4}$ oz., 40c. Double Cactus Mixed, pkt., 15c; $\frac{1}{4}$ oz., 75c.

DAISIES

BELLIS, DOUBLE (P)—Beautiful double flowers that appear in early spring if plants are slightly protected over winter. Blossoms also early from spring-sown seed, as plants bloom when but two or three inches high. Mixed, pkt., 15c;

SHASTA (P)—A most remarkable new flower, originated by Luther Burbank, of California; bears flowers of the snowiest white, with yellow centers; blooms the first season and should be sown in boxes early and transplanted. Pkt., 15c,

DIAMOND FLOWER (Inoposidium) (A)—A charming little thing for every window garden, growing only 2 or 3 inches high. The seed may be sown in the pots of other plants, resulting in a mass of minute green leaves and starry flowers which shine like diamonds. Colors are White and Violet Blue mixed. Pkt., 10c.

DIANTHUS OR PINKS (B)—A magnificent genus, embracing some of the most popular flowers in cultivation, producing a great variety of brilliant colors and profusion of bloom. They grow about a foot high and can be used in beds or borders of solid or mixed colors. The double flowering sorts are almost as fine as Carnations for cutting. Should have a sunny location. Single Mixed, pkt., 5c; $\frac{1}{4}$ oz., 25c. Double Mixed, pkt., 5c; $\frac{1}{4}$ oz., 25c.

DIGITALIS (Foxglove) (P)—Handsome, ornamental, hardy plants of stately growth. The seed, though small, germinates readily and the plants succeed well even in poor soil if given a half shady location. The spikes are often 3 to 5 feet long and thickly strung with scores of thimble-shaped flowers. Mixed colors, pkt., 5c,

DIMORPHOTHECA AURANTIACA (A)—The Golden Marguerite. A rare and extremely showy annual from South Africa which has become a great favorite on account of its very easy culture and beautifully colored flowers. Its Marguerite-like blossoms, produced in great profusion, are $2\frac{1}{2}$ to $3\frac{1}{4}$ inches in diameter. These are a unique glossy rich orange gold, which brilliant coloring is rendered more conspicuous by the dark disk surrounding the black zone. Pkt., 10c.

FEVERFEW (Matricaria Eximia) (A)—The plants are pyramidal in growth, eight inches high, with dark-green lacinated leaves. The plant is surmounted by numerous tall, freely branching flower-stems, which attain a height of eighteen inches, and are literally covered with small, double, pure white flowers. Valuable to grow for cut-flowers. Pkt., 5c.

FORGET-ME-NOT (MYOSOTIS) (P)—A modest little flower. A pretty trailer with blue flowers. Pkt., 10c.

FOUR O'CLOCK (MIRABILIS) (A)—Is also called Marvel of Peru. A handsome, free-flowering, sweet-scented plant. They open their blossoms about four o'clock in the afternoon, hence their name. Hardy annuals. Choice mixed, pkt., 5c.

GAILLARDIA (BLANKET-FLOWER) (A)—Splendid showy annuals, remarkable for the profusion, size and brilliancy of their flowers, continuing in bloom from early summer till November; excellent for beds, borders, or for cutting; should be sown where they are to bloom; $1\frac{1}{2}$ feet. Fine Mixed Single, Pkt., 5c; Perennial, Single Mixed, pkt., 15c.

FLOWER SEEDS—Continued

GERANIUM (P)—Comparatively few are aware that Geraniums may be grown easily from seed and flower the first season if sown early. This is the best way to secure Geraniums, as they will frequently reward the cultivator with charming new varieties. In fact, propagation by seed is the only way to obtain new varieties. **Zonale Mixed, pkt., 15c.**

GODETIA (A)—An attractive, hardy annual deserving more extensive cultivation. The plants bloom profusely and bear showy flowers of rich and varied colors, one and one-half inches. **Mixed, pkt., 5c.**

GYPSOPHILA OR BABY'S BREATH (A)—A pretty, free-flowering plant. Fine for bouquets. **Pkt., 5c.**

HELICHRYSUM (Everlasting) (A)—Sometimes called the Straw Flower. Large, full, double daisy-like flower heads with prominent centers and stiff overlapping scales, produced in various shades of bright yellow and scarlet on stems of good length. Desirable as dried specimens and for use in making winter bouquets. For this purpose the flowers should be gathered when on the point of expanding. Sow early in spring; thin to one foot apart each way. Hardy; two to two and one-half feet high. **Monstrosum, fl. pl., finest mixed. Largest double flowers, pkt., 5c.**

HELIOTROPE (P)—Everyone loves the delightful fragrance and beauty of the Heliotrope, but few know that it can be raised from seed as easily as the Verbena. To insure a long period of bloom seed should be sown early indoors. **Pkt., 10c.**

HOLLYHOCKS (P)—These fine, old-fashioned perennials are most striking when planted in groups of long rows; their variety of color is wonderful. When plants are once obtained they last for several seasons. **Double mixed, pkt., 10c; 1/4 oz., 40c.**



Heliotrope

ICE PLANT—Tender Annual Trailing—A pretty little trailer for baskets or massing; 6 inches high or less. Leaves covered with crystalline drops. Flowers white or pink. Valued for its remarkable foliage. **Pkt., 5c.**

JOB'S TEARS—Colx Lachryma—An annual ornamental grass, with broad, corn-like leaves and hard shining seeds of peculiar appearance, giving the plant its name. Two feet. **Pkt., 5c;**

KOCHIA TRICHOPHYLLA (Mexican Fire Bush, or Summer Cypress) (A)—A quick growing foliage or hedge plant, very symmetrical and attractive in summer and fall. The foliage is as fine as moss and of clean, bright, green color. Early in the fall innumerable little flowers appear and the bush takes on a deep red tinge. Sow outdoors early in spring, covering one-fourth inch deep. Make the rows two feet apart and thin eighteen inches apart. For earlier blooming start indoors and transplant to open ground. Hardy; about two and one-half feet high. **Pkt., 5c.**

LARKSPUR (Delphinium)—The Larkspur with its long clustered spikes of beautiful irregular flowers, often with long spurs, is especially valuable for its shades of blue. The annual forms are very desirable for bedding and the perennials are strikingly effective as a background for borders and for planting among shrubbery. Seed of annual varieties may be sown outdoors early in spring. For earlier blooming start very early indoors or sow in fall. Thin one to one and one-half feet apart.

The perennial sorts are sown in fall or early spring.

Double Dwarf Rocket, mixed, pkt., 5c.
Double Tall Rocket, mixed, 5c. Perennial, mixed, pkt., 5c. Perennial, Large Flowering, Dark Blue, pkt., 5c.

LAVENDER (Lavandula Vera) (P)—Well known, sweet-scented, hardy perennials, should be extensively grown in the mixed border; 3 feet. **Pkt., 10c.**

LINUM (Scarlet Flax) (A)—One of the most effective and showy bedding plants, of long duration, having fine foliage and delicate stems, with brilliant scarlet-crimson flowers; hardy annual; 1 foot. **Pkt., 5c.**

LOBELIA (A)—A very valuable and beautiful dwarf-growing plant, delicate drooping habit and profusion of charming little blue and white flowers.

Dwarf Single, mixed, pkt., 10c; 1/4 oz., 35c.
Single Tall Blue Specimens, pkt., 10c; 1/4 oz., 40c;
Single Dwarf Blue Emperor William, pkt., 15c; 1/4 oz., 50c.

MARIGOLD (Tagetes) (A)—The African and French Marigolds are favorite free-flowering hardy, of easy culture. The African varieties grow two to three feet tall, bear large yellow or orange-colored flowers, and are adapted for large beds or mixed borders. The French varieties are dwarfer in growth, with beautiful striped flowers three to four inches in diameter, and are better suited for bedding and pot culture. They succeed best in light soil with full exposure to the sun. Either variety is splendid for cut flowers.

Tall Double African, about two feet high with flowers three to four inches in diameter, in shades of yellow and orange. Mixed, pkt., 5c; 1/2 oz., 25c.

Tall Double French, one and one-half feet high with large double flowers. Mixed, pkt., 5c; 1/2 oz., 25c.

Dwarf Double African, about one and one-half feet high; large flowers; desirable for shrubbery or mixed border. Mixed, pkt., 5c; 1/2 oz., 25c.

Dwarf Double French, one foot high with large flowers. Mixed, pkt., 5c; 1/2 oz., 25c.

Orange French Dwarf, very double; rich orange; profuse bloomer; very desirable. Pkt., 5c; 1/2 oz., 25c.



Mignonette

MIGNONETTE (Reseda) (Allan's Defiance)—Spikes grow to a remarkable size and delicious

FLOWER SEEDS—Continued

fragrance. The individual florets are of immense size, forming a graceful as well as compact spike. Of extraordinary keeping qualities, retaining their grace and fragrance until every bud opens. Mixed, pkt., 10c; ½ oz., 40c.

MIMOSA PUDICA (A) (Sensitive Plant)—A curious plant with globular heads of small pink flowers, chiefly valued because of the extreme irritability of its leaves which close and droop at the slightest touch, also in cloudy, damp weather and at night. Start in hotbed in pots, and transplant to a warm situation six inches apart. Tender annual; height one and one-half feet. Pkt., 5c.

MOSCHATUS (Mush Plant) (P)—Small yellow flowers, fragrant foliage; leaves musk scented; fine for hanging baskets. Pkt., 5c.

ROSE (Multiflora)—Plants under good care will commence to flower when six inches high and about two months old, and continue to grow and bloom until they form compact bushes about sixteen inches high, well covered with single and double flowers. Open the berries and separate the seeds, sowing in pots of rich sandy soil and keep at about 70 deg. F., and moderately moist. When plants are about one inch high transplant and give plenty of light and air. Tender; blooming the first year. Pkt., 15c.

NASTURTIUM

For ease of culture, duration of bloom, brilliancy of coloring and general excellence nothing excels Nasturtiums. All they need is a moderately good soil in a well-drained, sunny position, and from within a few weeks from the time they are sown until hard frost comes there is an endless profusion of their gorgeous blossoms. No annual will produce such a lavish profusion of flowers for so long a time, with the same small outlay of time and labor. The maximum of bloom is produced in light or sandy soils and seldom diminishes through the hot weather. The beauty of these beautiful flowers is greatly enhanced by the gorgeous showing and rich color combinations of these extra choice mixtures.

TALL OR CLIMBING (A)—Specially adapted for covering verandas, trellises, trees, stumps, etc. Mixed, pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; lb., \$1.50.

TOM THUMB OR DWARF (A)—When planted in beds or masses the brilliant effect of these splendid flowers is scarcely surpassed by any of our finest bedding plants. Mixed, pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; lb., \$1.50.

NEMOPHILA — BABY EYES — LOVE-IN-THE-GROVE (A)—A charming little annual plant, thriving especially well in moist, shady places, but quite at home in the open garden. The pretty, bell-shaped flowers in shades of blue, and variously marked, are freely produced all summer. Plants eight inches high; of neat, bushy habit. Pkt., 5c.

NICOTIANA-AFFINIS (Tuberose-Flowered Tobacco) (A)—Delightfully sweet-scented, pure white tubular flowers, blooming continually; annual; two to three feet high. Pkt., 5c.

NIGELIA-LOVE IN A MIST OR DEVIL IN THE BUSH-DAMASCENA (A)—A compact, free-flowering plant with finely cut foliage, curious-looking flowers and seed pods; of easy culture, growing in any garden soil; hardy annual, blue and white mixed. Height one foot. Pkt., 5c.

PANSIES

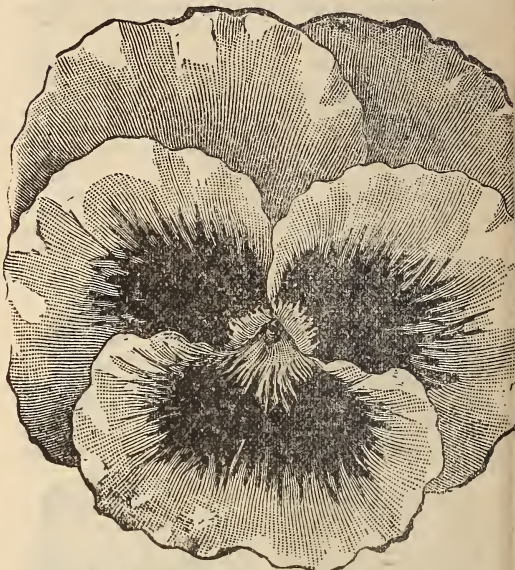
PANSY (VIOLA ARICOLOR) (P)—A half-hardy perennial, growing four to six inches high and probably the best known and among the most popular flowers in cultivation. It thrives best in a moist, shady location, and in

rich, loamy soil. Seed should be sown in the autumn for early spring blossoms, or can be sown early in the year for good flowers later in the spring.

FAUST—King of the Blacks—Almost coal black. The darkest Pansy grown. Pkt., 15c; ¼ oz., 75c.

FINE MIXED—Fine assortment of colors. Pkt., 5c; ¼ oz., 25c.

LARGE FLOWERING MIXED—This mixture is considered a most excellent one, and is distinguished for its great variety, size of flower, diversity of color and markings and for its free-blooming. Pkt., 20c; ¼ oz., 75c.



STEELE'S MASTODON PANSIES—For years the Steele Pansy Gardens have grown our Giant Pansies. These have been carefully re-selected and bred up to their present surpassing excellence, and for giant size, substance, form and coloring we have never seen Pansies to compare with them. Named varieties and special strains are grown separately and the seed collected by hand and carefully blended into what we believe to be the finest mixture ever offered. Price, per pkt., 25c.

TRIMARDEAU CANDIDISSIMA—Snow white. Pkt., 20c; ¼ oz., \$1.00.

TRIMARDEAU GIANT, MIXED—A splendid mixture of various shapes and markings. The blossoms are perfectly round and are blotched at the base. Pkt., 10c; ¼ oz., 50c.

PENTSTEMON (P)—Handsome, half hardy, herbaceous perennials about two feet high and much in favor for bedding out. Flowers bell-shaped or tubular, an inch and a half long, borne in racemes or spikes, white and various shades of rose and purplish red striped with white. Mixed, pkt., 10c.

PETUNIA

PETUNIA (A)—Is without a peer among annuals for effective summer bedding or indoor culture. It is of easy culture, early to bloom and continues throughout the summer until the first killing frost. No other flower produces a greater diversity of color, retaining its freshness for so long a period. The doubles may be perpetuated, if desired, by taking cuttings late in the summer, for winter house blooming plants. Provide good soil and a sunny location.

FLOWER SEEDS—Continued



Petunia.

Single Mixed, pkt., 5c. Single Fancy Mixed, pkt., 10c.

DOUBLE FRINGED, PINK—Large, exceedingly double flowers of many bright colors. Very desirable. Pkt., 30c.

PHLOX



PHLOX DRUMMONDII (A)—Of all summer-flowering annuals, the varieties of Phlox Drummondii are unquestionably one of the most brilliant and satisfactory. Seed may be sown in the open ground any time after danger from frost is past, and in a few weeks the beds or borders are aglow with their brilliant coloring and remain so until cut down by frost. For early flowering they should be started indoors or in a hotbed. Grandiflora Mixed, pkt., 10c; ¼ oz., 50c. Perennial Mixed, pkt., 15c.

POPPIES

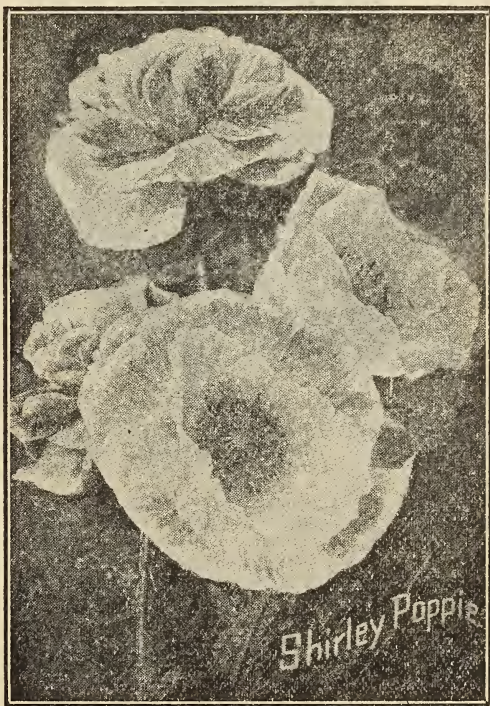
Probably no class of plants enjoys greater popularity and is more widely grown than the annual poppies; this is especially true of the single varieties. They are easily grown, and should be sown in beds or wild patches, in early spring, where they will grow high above the grasses on tall, graceful stems.

CALIFORNIA (Eschscholtzia) (A)—The state flower of California; an annual of rich, rare tints of yellow and orange. About a foot in height, beautiful foliage and large poppy-like flowers. Pkt., 5c; ½ oz., 25c.

ICELAND (P)—A graceful, delicate variety, with dark red single flowers, the petals resembling crumpled tissue paper. The plant is low-growing, but the stems are long and slender. Mixed, pkt., 10c; ¼ oz., 25c.

ORIENTAL (P)—One of the showiest of the perennials, with enormous flowers. The leaf is long and deeply cut and clothed with white, bristly hair. Beautiful among shrubs, roses and other perennials. Mixed, pkt., 10c; ¼ oz., 50c.

PEONY FLOWERED (A)—Large, showy, double, globular flowers; mixed. Pkt., 5c; ½ oz., 25c.



SHIRLEY (A)—The most beautiful type of poppies, having soft, hairy foliage, and a variety of single blossoms in white, pink, lavender, purple, red and scarlet. Free blooming and fine for bedding or tall border. Pkt., 10c; ½ oz., 25c.

Single Mixed, pkt., 5c; ½ oz., 25c. Double Mixed, pkt., 5c; ½ oz., 25c.

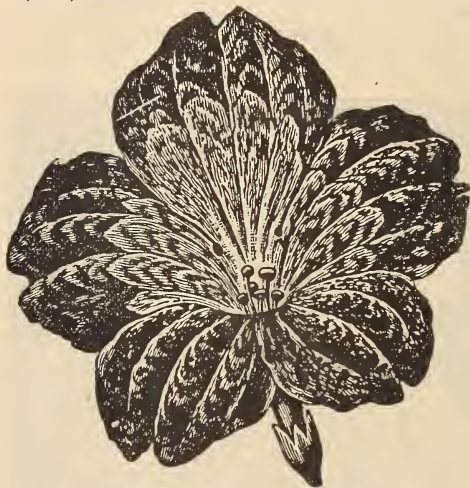
PORTULACA OR ROSE MOSS (A)—Brilliant, dwarf annuals, only six inches high, luxuriating in warm situations and blooming profusely from early summer to autumn. For low beds and masses of color, from spring until frost, they are indispensable; colors range through innumerable shades of red, yellow, pink, striped, white, etc.

Single Mixed, pkt., 5c. Double Mixed, pkt., 10c. Extra Double Mixed, large, flowering, pkt., 25c.

FLOWER SEEDS—Continued

PRIMROSE—SINENSIS OR CHINESE (P)—The beautiful, large fringed flowers stand in pyramids arranged on short flower stems. Blossoms of every shade of color, from pure white to deep crimson, and even deep blue; especially fine for winter and spring flowers in the house; easily grown; free bloomers. The finest single mixed. Pkt., 25c.

RICINUS, OR CASTOR OIL BEAN (A)—Ornamental plants of steady growth and picturesque foliage with brilliant colored fruit, producing a sub-tropical effect; fine for lawns, massing or center plants for beds. Mixed, pkt., 5c; oz., 25c.



Salpiglossis (Velvet Flower)

SALPIGLOSSIS (A)—The quaint, funnel-shaped flowers somewhat resemble those of the Petunia; beautiful range of colors. Finest Mixed, pkt., 5c.

SALVIA (Flowering Sage)—Splendens—Sold also as "Splendens Bonfire." The large, brilliant scarlet flowers are in very striking contrast with the rich, dark green back-ground of dense foliage. This variety is most generally used in parks and on extensive lawns, as it is more vigorous than the dwarf varieties. One of the most distinct and effective bedding plants. Two and one-half to three feet high. Pkt., 10c.

SCHIZANTHUS (Butterfly Flower) (A)—Hardy, growing one and one-half to two feet high and covered with bright, showy, butterfly-like blossoms. Large flowering. Mixed pkt., 10c.

SNAPDRAGON, OR ANTIRRHIN—One of the most useful and showy plants. Of almost every shade and color as beautiful as Carnations. They have recently been much improved and are now really magnificent. Hardy perennial.

Finest, Mixed, pkt., 5c; ¼ oz., 25c. White, pkt., 10c; ¼ oz., 50c. Pink, pkt., 10c; ¼ oz., 50c.

STOCK (Mathiola)—Sometimes called Gilliflower. Considered almost indispensable where a fine display of flowers is wanted and particularly valued for edgings, bedding and pot culture. The improved varieties of this favorite garden plant produce dense spikes of very fragrant and beautiful rosette-like double flowers in a wide range of attractive colors. They are suitable for cutting, being produced on stems of good length in pleasing contrast with the dark green foliage of the bushy plants.

The Stock is one of the most popular annuals; for brilliance and diversity of color, fragrance, profusion and duration of bloom it is unsurpassed.

LARGE FLOWERING DWARF, 10 WEEKS (A)—This is the leading class for bedding out or summer-blooming. Mixed, White, Rose, Dark Blue, pkt., 10c; ¼ oz., 50c. Perennial Dwarf, Pkt., 5c; oz., 40c.

SUNFLOWER (Helianthus) (Double Dwarf)—This pretty sunflower grows to be three feet tall and has late in summer bright golden yellow flowers on stiff stem; fine for cutting. This is a pretty and refined flower four inches across. Pkt., 5c; oz., 40c.

SWEET ROCKET (Hesperis) (P)—Old-fashioned garden plant, and among the most desirable of hardy flowers; also known as Dame's Rocket and Dame's Violet; grows from two to three feet high, and bears spikes of showy white, lilac and purple fragrant flowers. Excellent for naturalizing among shrubbery or for planting in a permanent border; mixed colors. Pkt., 5c.

SWEET SCABIOSA, OR MOURNING BRIDE (A)—Free-flowering annual; colors, white, carmine, lilac, maroon, etc. Very effective for garden decoration and valuable for cutting. Dwarf or tall double mixed. Pkt., 5c.

SWEET WILLIAM (P)—A well-known, attractive, free-flowering, hardy perennial, producing a splendid effect in beds and borders with rich and varied flowers. Mixed, pkt., 5c; ½ oz., 25c.

THUNBERGIA (Black-Eyed Susan) (A)—One of the best trailing plants for veranda boxes, vases, etc. Neat, compact growth. The pretty flowers, an inch in diameter, are white, buff or yellow, with black eye. Mixed, pkt., 5c.

TRITOMA (Red Hot Poker)—The sturdy plants average from two to five feet in height. The flower heads, borne on stout stems two to three feet long, are from six to nine inches in length, the colors including lemon to golden yellow, orange, orange-scarlet, and crimson. Plants in full bloom are exceedingly noble and striking in appearance. Where bright and bold effects either in the border or upon the lawn are desired nothing can exceed the beauty of this new early-flowering ever-blooming "Poker-Lily." The spikes are most useful also for cutting, as fine effects may be had when arranged in large vases with ornamental grasses or colored foliage. With a mulch of leaves or rough litter during winter, they are perfectly hardy and begin blooming in May the second season, continuing to flower freely until frost. Two or three-year-old plants frequently bear eighteen to twenty-five fully expanded spikes at one time, and if these are cut as they fade, new spikes will quickly take their places. Pkt. 15c.

VERBENA (A)—Very few annuals will make such a gorgeous display during the summer months or furnish more flowers for cutting than the Verbena. Start seed in the house or under glass early in the spring and transplant after three or four inches of growth. They flower in July and continue strong and healthy until destroyed by frost. Fine mixed, pkt., 10c; ¼ oz., 40c.

WALL FLOWER (P)—Produces spikes of beautiful, exceedingly fragrant flowers. Half-hardy perennial. Mixed, Single, large flowering. Pkt., 10c; ¼ oz., 50c.

VINCA (Periwinkle) (P)—These very attractive bushy plants with glossy green foliage produce in abundance handsome round or salver shaped single flowers, suitable either for culture in pots or boxes or for summer bedding and borders. If sown early under glass and transplanted in a warm, sheltered situation will bloom in summer and autumn and may be potted for the house before frost. The plants re-

FLOWER SEEDS—Continued

quire no trimming, are in continuous bloom from setting out until frost and are entirely free from the attacks of insects. These desirable features account for the increasing demand for Vincas in parks and private grounds for summer bedding and borders. Tender perennial, blooming the first season, about fifteen inches high. Mixed, pkt., 10c.



VIOLETS (P)—*Viola Odorata* is the well-known English Violet, a free-flowering, hardy perennial. Easily grown from seed, though somewhat slow in germinating; succeeds best in partially shaded moist places. Finest Mixed, pkt., 10c.

GARDEN MIXTURE (A)—A garden is not complete without a bed of this mixture of flowering annuals. A package will sow a bed about two by ten feet, and if sown early in the spring will furnish continual bloom throughout the season. Pkt., 10c; oz., 40c; ½ lb., \$1.00.



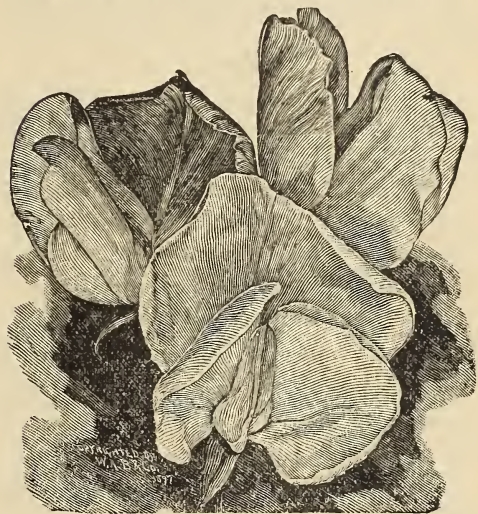
ZINNIAS (Elegans Grandiflora Double) (Youth and Old Age) (A)—Is one of the most brilliant and showy annuals, and has long been a general favorite. The seed can be sown early in the hotbed and transplanted, or sown later in the open ground. They come in flower early in the summer, and keep on blooming until first frost. Mixed, pkt., 5c; ¼ oz., 25c.

SWEET PEAS

No garden is too small for a row of Sweet Peas, and no estate, however extensive or magnificent, should fail to include many varieties of this most popular flower. Hundreds of varieties have been offered for sale by seedsmen, but owing to recent marked improvements many sorts are decidedly inferior and have been dropped from our list.

CULTURE—Early in spring make a trench three to four inches deep in rich, mellow soil, so arranged that no water can stand in it and plant the seed in the bottom, covering at first only one inch deep. Sweet Peas, particularly the white seeded sorts, are often a little difficult to start. If the soil is too dry they will remain a long time without germinating; if it is too wet and cold they will not sprout at all. In soils at all heavy, or composed largely of clay, put about one inch of sand in the bottom of the trench and sow the seed in this, covering with more sand. Cover the row with a board to shed

the rain and protect the soil from the hot sun but remove this as soon as the young plants appear. When the plants are two inches high, cultivate and as they grow gradually fill up the trench. When the plants are about five inches high it is desirable to furnish some support for the vines to run upon. The roots should not be allowed to become too dry. Water applied thoroughly once or twice a week, preferably early in the morning or in the evening, is usually better than light sprinkling more frequently. The blooms should be picked before they form pods or the plants will soon stop flowering.



Grandiflora Type

All varieties of Grandiflora Sweet Peas: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25; postpaid.

Lavender and Blue

CAPTAIN OF THE BLUES—Standard light maroon, wings light purple.

COUNTESS OF RADNOR—Self-colored in a very distinct and beautiful shade of lavender.

FLORA NORTON—A rich lavender, entirely free from any pinkish tinge—almost "a bright blue." Medium size, hooded form.

LADY GRISEL HAMILTON—A large soft lavender, tinted mauve; similar to Countess of Radnor, but nearer blue; hooded form. One of the best.

LORD NELSON, OR "BRILLIANT BLUE"—A brilliant dark navy blue with tips of wings a lighter blue. Giant flowers, slightly hooded.

Orange Pink

MISS WILLMOTT—A fine orange-pink, showing veins of deeper tint. Flowers semi-hooded. good size, on long stems; plant very vigorous.

Pink and Rose Shades

KATHERINE TRACY—Rose pink. Splendid, large, open flower, good substance and color, a vigorous grower and free bloomer.

PRIMA DONNA—One of the very best of the hooded pink grandiflora varieties. The flowers are of good size, clear soft shade; self-colored. The vines are of vigorous growth, often with three or four flowers on a stem.

HON. MRS. E. KENYON—Clear primrose; large semi-hooded flower. White seeded.

FLOWER SEEDS—Continued

Purple and Maroon

OTHELLO—A vary dark maroon, practically self colored with almost black veining. Large size, hooded form, very attractive.

MRS. WALTER WRIGHT—A large, hooded, rosy purple.

BLACK KNIGHT—Glossy deep maroon, one of the darkest; medium size, open form.

DUKE OF WESTMINSTER—Purple standard, with wings shading to violet; large size, hooded form.

Red

FIREFLY—An intense crimson scarlet, of large open and expanded form. One of the best bright reds yet offered and its fiery coloring makes it a most desirable bouquet variety.

KING EDWARD VII.—A lovely, intense crimson. A truly giant flowered variety. The finest crimson to date. Strong stems and growth.

MARS—Bright red, very beautiful; free bloomer.

SALOPIAN—One of the most brilliant sorts yet introduced. The flowers are of faultless form, large and a rich, brilliant cardinal red.

Rose With White Wings

BLANCHE FERRY—Blooms very early and continues to produce abundantly through a long season. The standard is medium sized, of open form, and bright rose-pink; wings large, rounded nearly white. The typical pink and white sweet pea.

Striped and Variegated

AMERICA—Bright red on a silvery white ground; showy.

DAINTY—The beautifully formed large flowers, upon first opening, appear to be white, but quickly change to "white with pink edge"—making a most charming contrast.

SENATOR—Purplish maroon, heavily striped on a white ground. Darkest striped variety.

White

BLANCHE BURPEE—A splendid pure white variety.

EMILY HENDERSON—A bold, well-formed, clear white flower. Wings broad and well expanded. An early and wonderfully free and persistent bloomer.

DOROTHY ECKFORD—Pronounced by Sweet Pea experts to be the grandest pure white yet seen of the grandiflora type. Grows an enormous mass of blooms.

SHASTA—A very large, pure white; of excellent substance with the edges of both standards and wings finely fluted.

All varieties of the foregoing Grandiflora Sweet Peas: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25.

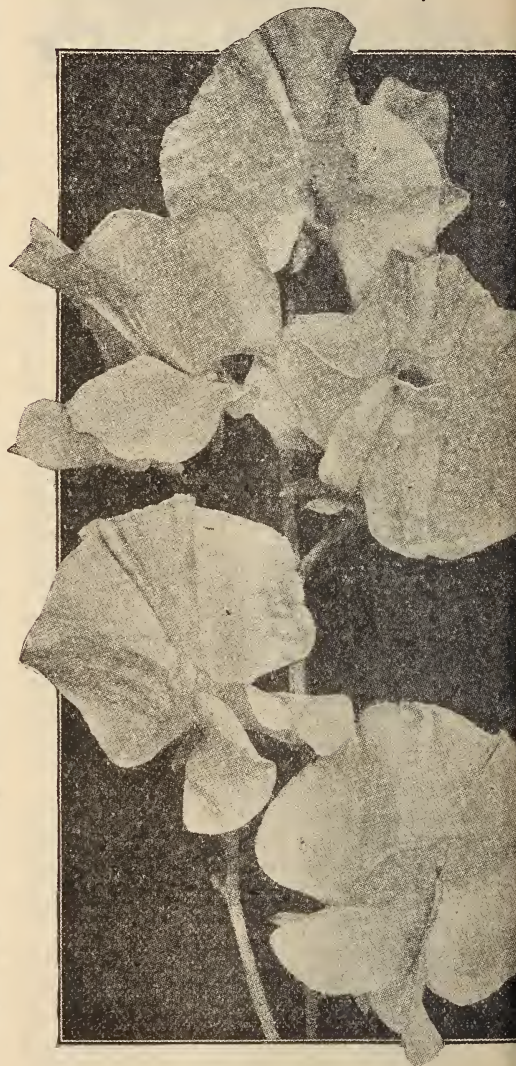
Mixed

CLOVER LEAF LARGE FLOWERING—This elegant mixture embraces the introductions, including the recent novelties of Mr. Eckford, the Sweet Pea specialist of England, who has accomplished more than any other individual in bringing the Sweet Pea to its present state of beauty, size and perfection. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 35c; ½ lb., 60c; lb., \$1.00.

Spencers

The last few years has seen a wonderful development in Sweet Pea culture. For many years previously the "Grandiflora" type had

maintained an unchallenged leadership, and new types were very slow in making their appearance. About ten years ago, however, after several years of experimenting, a distinctly new type was developed in the gardens of Earl Spencer in England. The new flower was called "Countess Spencer," and from this magnificent sort has been developed that remarkable class of Giant Orchid-Flowered Spencer Sweet Peas known and admired throughout the horticultural world. The "Grandiflora" are somewhat better able to adapt themselves to adverse conditions and under such conditions do give greater satisfaction, but when properly grown the "Spencer" in size of blossoms, beauty of form, substance and color, the unusual number on a stem, and the long continuance of their season, easily maintain an unapproachable leadership.



White Spencer

All varieties of Spencer Sweet Peas, unless otherwise quoted: Pkt., 10c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.00.

FLOWER SEEDS—Continued

Crimson and Scarlet

GEORGE HERBERT—Bright rose carmine. Large, open and wavy form of the Countess Spencer type.

KING EDWARD VII.—The standard is a deep, rich carmine scarlet of glossy effect. The wings are also carmine scarlet, and on the reverse side are also a deep rose carmine.

MARIE CORELLI—The wings are a pure rich rose-crimson while the standard shows a tint of cherry-red. The whole effect is that of a brilliant crimson—clear, distinct and most beautiful. The standard is large, round and wavy; the wings are full and inclined to remain boldly out-right instead of drooping. The long strong stems usually bear four flowers each.

MAUDE HOLMES—A brilliant sunproof crimson of the largest size. Of true Spencer form, wavy and fluted. The perfect blooms are carried on extra long stems. A crimson of real merit.

QUEEN ALEXANDRA—One of the finest yet introduced. In color a rich bright scarlet; flowers of largest size.

SENATOR—Wavy edges on both standard and wings—large, round, fluffy standard; long, drooping wings. The stems are long and there are usually four good, large, finely-formed flowers on each stem. The vines are a perfect mass of bloom throughout the season. The color is a varying combination of deep claret of light heliotrope.

Cream

MRS. HUGH DICKINSON—One of the most chaste and charming varieties yet obtained. The coloring is a rich pinkish apricot on a cream ground, shading off rather lighter toward the center of the flower. The gigantic flowers are uniformly of the best Spencer type, and practically always borne in fours upon exceedingly long stems—and sometimes five flowers to a stem. The vines of most vigorous sturdy growth, begin blooming early and continue to flower in wonderful profusion.

Lavender and Blue

ASTA OHN—Each stem bears four fine waved flowers. The color is a charming soft lavender, suffused with mauve.

CAPTAIN OF THE BLUES—Purple, with blue wings, beautifully waved; margin of petals marbled. Flowers of large Spencer form, but lighter shade than Captain of the Blues; more truly Waverly Spencer in color.

Maroon and Purple

MRS. CHARLES MANDER—The flowers are enormous in size, waved and crinkled, of a deep velvety maroon, produces four flowers to a stem.

OTHELLO—The flowers are beautifully waved or crinkled both in standard and wings. The long stems are thick and carry well either three or four fine blooms of a rich deep maroon. It is a strong grower and flowers most profusely.

Orange and Salmon

BARBARA—A superb salmon-colored self that makes a "telling" bunch either for exhibition or table decoration, but the flower requires to be slightly shaded.

HELEN LEWIS—The orange-rose wings roll and fold; the standard is reflexed, showing the distinctly fluted effect, and is of an intense rich crimson-orange. The blooms are truly of a gigantic size—the ruffled standard measuring two inches across.

STIRLING STENT—This is the richest and brightest colored Sweet Pea in cultivation. Of the most advanced Spencer type, both standard and wings being beautifully waved, robust, vigorous and free-flowering habit, this unique variety must find a place in every garden. The color is a rich, glowing, deep salmon self, suffused with orange and practically sunproof even under the hottest suns. Of large size, the flowers are produced three and often four on long stems.

Rose With White Wings

BLANCHE FERRY—Similar in color to the popular Blanche Ferry, but of true giant Spencer type. The standard is bright rose, the wings being pinkish or bluish-white.

Pink

Dainty—It is a most beautiful pink-edged variety; the ground color is pure white with a very distinct margin of rose-pink. The general effect is light and dainty, as the white ground is particularly clear and glistening.

HERCULES—(Synonym, Kralissa.)—A self of truly giant proportions, undoubtedly the best of its class. A flower of great substance; the broad spreading and beautifully waved standard frequently measures two and one-half inches in diameter. This grand variety is a fitting companion in size and form to the superb gigantic Elfrida Pearson, from which it differs in being of a deeper, warmer shade.

LOVELY SPENCER—Standard light blush pink with blotch of rose at the base; wings the same, all suffused with soft buff.

MIRIAM BEAVER—A charming combination of bright apricot-pink on a primrose ground a little deeper at the margins and showing pure primrose at the base of the petals, of perfect Spencer form.

MRS. ROUTZAHN—Buff or apricot ground, flushed and suffused with delicate pink, deepening toward the edges. The flowers are of the largest size—thoroughly crimped and waved. The standard is broad and deep; the wavy wings are so large that they usually hide the keel. Decidedly the most beautiful "Apricot and Pink."

Yellow

DOBBIES CREAM—This is regarded as one of the best yellow Spencers. The standards are large and beautifully curved. A free grower and bloomer and produces three and fours on long stiff stems.

PRIMROSE—The waved standard measures nearly two inches across; the crinkled wings are an inch across by one and one-eighth inches deep. The color is a clear primrose throughout.

PRINCE OLAF—The bold effective flowers are extremely large, of the true waved Spencer type, and have a most pleasing effect. The background is quite a deep primrose flushed with rose. The flowers are all of good substance, borne three and four on a stem.

QUEEN VICTORIA—The flowers are extremely large, of the true waved Spencer type, and have a most pleasing color effect. The background is quite a deep primrose flushed with rose. The flowers are all of good substance, borne three and four on a stem.

White

ETTA DYKE—Large, pure white.

PRINCESS VICTORIA—White blush and pink edged.

All varieties of the foregoing Spencer Sweet Peas: Pkt., 10c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.00.

FLOWER SEEDS—Continued

Mixed

CLOVER LEAF SPENCER—In this mixture we have used only the choicest and best of the Waved Spencer and have taken every care to produce in the mixture a proper balance of colors. We are confident that in offering this truly incomparable blend we are giving our customers the opportunity of securing the cream of the latest and best efforts in Sweet Pea culture. Pkt., 10c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; lb., \$2.00.

Unwins

This variety resembles the Spencers but are not quite as large, but are very vigorous and free bloomers and are very dependable.

GLADYS—Bright, clear pink, slightly deeper tint at the edges. Spencers form but a little smaller and flowers more freely.

NORA—Flowers very large, pure white with very broad standards and beautifully frilled. Pkt., 10c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; lb., \$2.00.

VINES FROM SEEDS

BALLOON VINE (LOVE-IN-A-PUFF) (A)—A rapid growing annual climber; succeeds best in light soil and warm situation; flowers white; seed vessels like miniature balloons. Pkt., 5c; oz., 25c.

BEANS—Scarlet Runners—A great favorite, not only as an ornamental climber but for the delicious edible beans which succeed the bright scarlet sprays of pea-shaped blossoms. Oz., 10c; ¼ lb., 15c; lb., 35c.

BEAN HYACINTH (Australian Pea Vine), (Dolichos)—This really beautiful climbing plant is of quick growth; the foliage is handsome, and the clustered spikes of beautiful purple and white flowers are borne in great profusion. The shining purple seed-pods are also very ornamental. Tender annual, growing six to eight feet. Seed should be sown where plants are desired, in as warm and dry a spot as possible. Mixed, pkt., 5c; oz., 20c.

CANARY BIRD VINE (P)—A beautiful climber; flowers a bright golden yellow, bearing a fanciful resemblance to birds with expanded wings. Pkt., 5c; ¼ oz., 15c.

CYPRESS VINE OR IPOMOEA QUAMOCLIT (A)—A climber of rapid growth, having handsome fern-like foliage and a profusion of bright, attractive flowers. Mixed, pkt., 5c; oz., 25c.

COBAE SCANDENS (A)—One of the handsomest and most rapid growing of the annual climbers. It climbs thirty feet in a season. The flowers are bell shaped and of a purplish lilac color. Very prolific and perfectly hardy. The vine is always clean of insects. Mixed, pkt., 10c; ¼ oz., 25c.

GOURD (Cucurbita (A))—A very extensive genus of trailing annuals with curiously shaped yellow fruit, commonly known as Ornamental Gourds. The vines are of easy culture and make a rapid growth, so are much used for covering old fences, trellises, stumps, etc. The foliage is ornamental, and the markings of some of the fruit extraordinary. Do not plant the seed till danger of frost is over, and select light, rich soil and a sunny situation. Water freely. Ten to twenty feet high. Dipper or Siphon, pkt., 5c; oz., 25c. Mixed, pkt., 5c; oz., 25c.

JAPANESE KUDZU VINE—The Kudzu Vine comes from Japan, the land so productive of curious and ornamental flowers. It is a beautiful climber, remarkable for its great vigor of growth and its handsome flowers. The blossoms are large and in panicles somewhat like the Wistaria, but larger in size and with better clusters. The color is a pleasing shade of pur-

ple. The foliage is luxuriant. The vine is extremely rapid and dense in growth, perfectly hardy, increasing in size and beauty year after year; fine for arbors, verandas, etc. Pkt., 10c; ¼ oz., 40c.

JAPANESE HOP (Humulus)—Variegated Japanese Hop. A charming climber, attaining a growth of 20 to 25 feet in a few weeks. The leaves (6 to 7 inches across) are beautifully marked and variegated with white yellowish green and dark green. Not injured by insects or by heat, and the vine retains its beauty until frost. Hardy, the roots living over winter, though it is not a true perennial. Pkt., 10c; ¼ oz., 25c.

MOON FLOWER, OR IPOMOEBA, MEXICANA GRANDIFLORA (A)—Rapid growing climber, belonging to the Morning Glory family. The flowers are large, waxy white and very showy. Black seeded. White seeded. Pkt., 10c; ¼ oz., 25c.

MORNING GLORIES (A) (Convolvulus major, Ipomoea purpurea)—A handsome showy climber of easy culture and suitable for covering arbors, windows, trellises, old stumps, etc., if support be given the vines. Hardy. Seed is usually sown outdoors early in spring in row where plants are to remain. Well pulverized soil should be used and the seed covered one-half inch deep; thin four to six inches apart. If very early blooming is desired, seed may be started indoors and transplanted. Give some support such as strings or cord to the vines as soon as they begin to run and they will often exceed ten feet in height before the season is over.

Morning Glory—Tall, fine mixed, a great variety of colors of the popular old-fashioned sorts. Pkt., 5c; oz., 15c.

Giant Japanese (Imperial)—The flowers of this variety are of largest size, often three inches or more across; some are brilliant red or rich blue, others are equally brilliant, with broad margins of clear white; some are striped or dotted with blue or red on white or lemon yellow ground, others are clouded with blue and red. The foliage in some plants comes plain green, in others it is mottled with white and shades of yellow or yellowish green. Seed black, larger than other varieties of Morning Glory. Pkt., 10c; oz., 25c.

NASTURTIUM, TALL OR CLIMBING (A)—A very well-known ornamental, profuse flowering plant, adapted for rock work. The seeds, if picked young, are an excellent substitute for capers. Mixed, pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; lb., \$1.50.

SMILAX (BOSTON IVY) (P)—Charming tender, perennial climber for greenhouse or window gardens. The foliage and stems are of a pleasing light green; very graceful; excellent for decoration. Pkt., 10c; ¼ oz., 25c.

WILD CUCUMBERS (A)—A well-known vine, common in many sections, and the quickest climber known for covering verandas, old trees and houses, trellises, etc., never suffering from the heat, but retaining its fresh, lively green color; never infested with insects and very profuse in bloom. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 70c; ½ lb., \$1.25; lb., \$2.00.

VINES FROM ROOTS

CINNAMON VINE—This climber is appropriately called Cinnamon Vine. Very hardy, the stem dying down every autumn, but growing again so rapidly as to cover completely any trellis or arbor early in the season. With its beautiful heart-shaped leaves and clusters of delicate white flowers, and most delicious cinnamon odor, is a most desirable climber. Postpaid, each, 5c; doz., 50c.

CLEMATIS JACKMANNI—Of strong growth, hardy nature, rich, deep velvety-purple flowers, is the most satisfactory of its class. Blooms with astonishing profusion. Postpaid, 75c.

FLOWER SEEDS—Continued

HONEYSUCKLE—Grows vigorously, with yellowish white, fragrant flowers. Postpaid, 50c.

HOPS—Are the most rapid growers of any vine coming from the roots each spring. Their rapid growth and large broad leaves cover a porch before the arrival of the hot days of the summer. Postpaid, doz., 60c.

MADERIA VINE—A beautiful rapid climber, bearing graceful racemes of fragrant white flowers; very pretty and useful. Postpaid, each, 5c; doz., 50c.

VIRGINIA CREEPER—Has large, luxuriant foliage, which in autumn assumes the most gorgeous and magnificent color; one of the finest vines for covering trellises, or verandas. Postpaid, 50c.

Bulbs

SUMMER FLOWERING

There is nothing in floriculture that will give greater satisfaction or produce such grand results as this class of bulbs, which includes some of our showiest garden flowers. They are of the easiest culture. Planted in spring in good garden soil, they flower with great certainty during summer and fall. The hardy sorts may remain in the ground over winter, but tender sorts should be taken up after the foliage dries in the fall, and the bulbs stored away in a dry, cool place until planting time the next spring.

CANNAS

Cannas should be planted in good, rich garden soil, mixed with half of old rotten stable manure by the end of May, when danger from frost is past. Water sparingly for first two weeks after planting. When growing freely water liberally. They are quick growers and bloom continuously until frost. Inexpensive, these charming ornamental plants produce rich tropical effects that cannot be excelled, and they are equally valuable for the beauty of their bloom.

Orange Flowers, Green Foliage

MRS. CARL KELSEY—Six to seven feet. Green foliage, orchid-flowering with narrow edge of purple. Orange-scarlet, flaked and striped with golden-yellow petals which have a wavy edge. Each, 10c; 1/2 doz., 55c; doz., \$1.00.

ORANGE BEDDER—A particularly attractive bedding variety of a bright orange with just sufficient scarlet suffusion to intensify the dazzling mass of color when the wide branching stems are covered with flowers. Each, 10c; 1/2 doz., 55c; doz., \$1.00.

PANAMA—The color and markings of this splendid Canna are unusual; the rich orange-red face of the petals is bordered with a broad edge of golden-yellow; the florets are large and produced very freely. Each, 20c; 1/2 doz., \$1.10; doz., \$2.00.

Pink Flowers, Green Foliage

HUNGARIA—The ideal pink bedding Canna; flowers large, in good sized trusses, produced early, freely and continuously, in color not unlike that of the Paul Neyron Rose. It possesses a softness and refinement not found in any other. 3 to 3 1/2 feet. 2 for 25c; 1/2 doz., 70c; 1 doz., \$1.25.

MRS. ALFRED F. CONARD—An entirely new note in Cannas was struck with the introduction in 1910 of this variety. Its exquisite salmon-pink flowers are of largest size, in erect and abundantly furnished heads, so freely produced as to keep a superb showing for months; rich green foliage. Each, 20c; 1/2 doz., \$1.10; 1 doz., \$2.00.

ROSEA GIGANTES—A rich rose-pink flower of giant size and a prodigious bloomer. Color is soft rose to carmine-pink, while its great flower heads are a wondrous size. It has received the

highest award accorded any Canna (The Award of Merit from the Horticultural Society of England. Four feet. Each, 20c; 1/2 doz., \$1.10; 1 doz., \$2.00.

Red Flowers, Green Foliage

ALPHONSE BOUVIER—A deep cardinal, growing to a height of five or six feet, with splendid foliage; large flowers borne on good trusses. 2 for 25c; 1/2 doz., 60c; doz., \$1.15.

FANAL—An intense, fiery cinnabar-red that compels attention; foliage deep green with narrow border, flowers produced very freely throughout the season. 2 for 25c; 1/2 doz., 60c; doz., \$1.15.

METEOR—A magnificent bedding variety of strong, robust habit, with green foliage and enormous trusses of large, bright blood-red flowers freely produced well above the foliage. Each, 20c; 1/2 doz., \$1.10; 1 doz., \$2.00.

Spotted Flowers, Green Foliage

ALLEMANIA—Ground color yellow, heavily blotched and overlaid with blood-orange. Six feet. 2 for 25c; 1/2 doz., 60c; doz., \$1.15.

GENERAL MERKEL—Scarlet suffused with orange; base and edge of flower marbled with golden-yellow: 4 feet. 2 for 25c; 1/2 doz., 60c; doz., \$1.15.

GLADIATOR—Very showy bedding Canna of medium height, with large flowers of brassy-yellow thinly speckled in dull red. The long center petals and lower petal are solid dark red, making a most striking contrast to the predominating yellow. Three feet. Each, 10c; 1/2 doz., 55c; doz., \$1.00.

Yellow Flowers, Green Foliage

BRILLIANT—Flowers of medium size, pure golden-yellow, with two curling tongue-like petals of fiery red that dart from the center. Height, 4 feet.

COUNSELL W. VELLNAGLE—Light lemon-yellow, light brown blotched and striped; large flower, bluish-green foliage. Four feet.

GUSTAVE GUMPPER—The finest yellow bedding Canna; flowers of good size are held well above the foliage, the fine trusses always clean looking; in habit of growth very uniform; color a rich golden-yellow shade that has been missing heretofore and which can be seen as far as the eye will carry. Three and a half feet to four feet.

The yellow flowered varieties: 2 for 25c; 1/2 doz., 70c; 1 doz., \$1.25.

Orange Flowers, Bronze Foliage

EHRENFELS—Splendid rich orange-colored flowers of good size, formed into very large trusses which are held well above the metallic bronze foliage; a splendid addition to the bronze-leaved type; 4 1/2 feet. 2 for 25c; 1/2 doz., 70c; doz., \$1.25.

WYOMING—Bronzy-purple foliage, with immense spikes of massive orange flowers. 2 for 25c; 1/2 doz., 60c; doz., \$1.15.

RED FLOWERS, BRONZE FOLIAGE—

Red Flowers, Bronze Foliage

KING HUMBERT—In this grand new Italian Canna we have a combination of the highest type of flower with the finest bronze foliage. Its flowers, which under ordinary cultivation will measure six inches in diameter, and which are produced in heavy trusses of gigantic size, are of a brilliant orange-scarlet, with bright red markings, while the foliage is broad and massive and of a rich coppery bronze with brownish-green markings. Bold and effective. Makes a gorgeous effect when planted in mass.

Each, 15c; 1/2 doz., 80c; 1 doz., \$1.50.

LOUIS REVERCHON—This is one of the best dark-leaved red flowering varieties; the flowers are very large, of a cochineal-red color, very freely produced on vigorous plants with light bronze foliage; 4 1/2 to 5 feet. 2 for 25c; 1/2 doz., 70c; doz., \$1.25.

FLOWER SEEDS—Continued

WABASH—Beautiful large carmine-rose flowers freely produced. This variety is similar to the well-known *Rosea Gigantea*, but has bronze foliage; 4 feet. Each, 15c; ½ doz., 90c; doz., \$1.75.

One each of the twenty varieties of *Cannas*, all nicely labeled: \$3.75.

Two Remarkable Varieties

Firebird

This is by all means the very best red-flowered, green-leaved *Canna* today.

The flowers are borne in immense trusses, on tall stalks well above the leaves. They are of splendid form, round and shapely. The petals measure two and one-half inches and over across, and the color is a clear glistening scarlet without streaks, spots or blotches.

Yellow King Humbert

A sport of that most popular of all *Cannas*, *King Humbert*, producing larger flowers of a beautiful shade of yellow, lightly spotted red, with green foliage; five and six clusters of flowers at a time.

Without doubt the finest of its color yet produced.

These two varieties, Each, 40c; ½ doz., \$2.25; doz., \$4.00.

DAHLIAS

The *Dahlia* is one of the showiest of all autumn flowers. Commencing to flower in July, they are a perfect blaze of bloom until stopped by frost. Especially fine for cut flowers. They have been greatly improved and are growing in favor from year to year. The following selections have been made with the greatest care, and every one will be found to possess true merit, and with proper care and conditions will amply repay the care and attention that has been given them.

Cactus Dahlies



The Cactus forms of *Dahlias* are exceedingly beautiful, and are hard to excel. They have long twisted petals and embrace nearly all the

colors and shades to be found in any of the other types. The petals being closely rolled outwardly, and the pointed ends standing apart, give a distinctly starlike form to the flowers; in some the long slender petals are charmingly curled. For large size, exquisite colors, elegance of form and profusion of bloom these following varieties represent the latest and best in Cactus *Dahlias*.

Cactus

AMBER QUEEN—A bold, large flower of a rich amber, suffused with scarlet; very attractive and free-flowering. Each, 25c.

CANDEUR—A wonderful pure white, which in the fully developed flower more closely resembles an incurved *Chrysanthemum* than any other sort; a valuable cut flower. Each, 40c.

COUNTESS OF LONSDALE—A peculiar but pleasing blending of salmon-pink and amber, a color difficult to describe. This is the *Dahlia* for the million. Blooms freely under all conditions. Each, 40c.

FLORADORA—A remarkably free-flowering, bright, blood-red. Each, 35c.

GALATHEA—A medium-sized flower of splendid form, especially appreciated on account of its delicate color, which is an even, tender, soft pink. Each, 40c.

LIBELLE—A very free variety, with large flowers of good form; of a distinct purple color, rich and pleasing. Each, 35c.

PERLE DE LYON—The best white of any class for cut flowers; blossoms of good size and held erect on long, stiff, wiry stems. Each, 35c.

PRINCE OF YELLOWS—A rich canary-yellow; the best yellow for cutting. Each, 35c.

RENE CAYEAUX—Rich geranium-red; one of the earliest blooming varieties. Each, 40c.

RHEINKONIG—Pure snow-white flowers of splendid form, 5 inches and over in diameter. These are of great substance, lasting splendidly when cut; they are borne on long, stiff stems held well above the foliage, making it as valuable for garden decoration as for cutting. Each, 50c.

One each of these ten fine Cactus *Dahlias* nicely labeled and carefully packed, postpaid, \$3.25.

DECORATIVE

DELICE—The most popular pink variety. Its beautiful soft, yet lively color, a glowing rose-pink, together with its perfect shape, stout, stiff stems, and the fact that when cut it retains its freshness for a long time, makes this one of the most valuable for cutting or decorative sorts in the garden. Each, 40c.

EASTON—Not an extra large flower, but a variety which, on account of its brilliant color, good form and remarkable free-flowering habit, is certain to become a standard, both as a cut flower as well as for garden decoration; in color it is a brilliant Turkish or Oriental red. Each, 35c.

JACK ROSE—Ideal cut flower variety; in shape like a full Rose, 5 to 6 inches across; each flower borne on a two-foot stem. The color is a brilliant crimson-red. Each, 25c.

LYNDHURST—Brilliant cardinal-red. A fine cut flower. Each, 25c.

MINA BURGLE—It is one of the freest flowering decorative varieties; 30 large, perfect flowers on one plant at a time not being unusual; in color it is a rich, luminous, dark scarlet; these flowers are carried on long, stiff stems; splendid both for cutting and garden decoration. Each, 50c.

MONT BLANC—An early, free, continuous flowering, creamy-white on good stiff stems. One of the most important cut flower varieties. Each, 40c.

BULBS—Continued

OREGON BEAUTY—A brilliant gorgeous flower that attracts much attention on account of its rich color, an intense Oriental-red with golden sheen and garnet suffusion. Produces its large flowers on long stems in the greatest profusion. A splendid garden variety. Each, 50c.

SOUVENIR DOUZON—Mammoth flower, of free growth; remarkably profuse bloomer and pure red in color. Each, 40c.

SYLVIA—Soft, pleasing mauve-pink, gradually changing to white in the center. A fine cut flower. Each, 25c.

One each of these nine beautiful decorative Dahlias, nicely labeled and packed, postpaid, \$3.00.

Paeony, Flowered

MRS. G. GORDON—A large lemon-yellow; one of the best. Each, 50c.

SHOW

A. D. LIVONI—A splendid, clear pink, beautifully quilled, of perfect form and very free-flowering. Each, 25c.

ARABELLA—Light sulphur-yellow, shaded peach-blossom on edges; a fine flower. Each, 25c.

DREER'S WHITE—It still remains at the head of the list of all white show varieties; it is of purest color, a live glistening white, closely resembling in form the variety Grand Duke Alexis, while in freedom of flowering it is not surpassed by any. It has succeeded in all parts of the country, has been greatly admired at the exhibitions where shown, and has in most cases been awarded the premier prizes as the finest white show variety. Each, 50c.

EMILY—Solferino, with white markings; very large. Each, 35c.

RED HUSSAR. Pure cardinal-red; perfect form. Each, 30c.

WHITE SWAN—Large, pure white flowers; always borne upon long stems. Each, 30c.

One each of these fine six show Dahlias, nicely labeled and carefully packed, postpaid, \$1.75.

Gladioli

Gladioli are the most satisfactory, desirable and popular of all the garden bulbs. Nothing else of the kind costs so little, grows and blooms so readily in any soil of climate as Gladioli. They thrive and bloom with the least care and attention, and make a display which for brilliancy and beauty of coloring few bulbs can equal and none surpass. Plant any time from March to June.



Named Gladioli

AMERICA—A beautiful soft flesh pink. By far the most vigorous and easily grown Gladiolus known. Strong and healthy with luxuriant dark-green foliage and a freedom of growth and flowering surpassing all others. Spikes two to three feet long, erect with a

great number of large spreading blossoms, all facing one way and showing a color, the delicacy and beauty of which it is impossible to describe or reproduce. It is an exquisite, soft lavender pink, very light, almost a tinted white. Each, 5c; 1/2 doz., 30c; doz., 50c.

AUGUSTA—Flowers are of perfect paper-white, with a slight pink shade on lower half of the petal. The spike is set solid and perfect with the flowers from top to bottom. Each, 5c; 1/2 doz., 30c; doz., 50c.

BARON HULOT OR BLUE JAY—Good-sized flower; well arranged on straight spikes; color, dark violet, bordering on blue. 3 for 25c; 1/2 doz., 40c; doz., 75c.

MRS. FRANCIS KING—Of exceptional value for cut flower use. Color is a very pleasant light scarlet, strikingly attractive. Separate flowers often measure 4 to 5 inches across and 5 to 6 flowers are open at one time. Each, 5c; 1/2 doz., 30c; doz., 50c.

BALTIMORE—A splendid light salmon, with deeper shadings in throat. Each, 20c; 1/2 doz., \$1.10; doz., \$2.00.

BLANCHE—The finest white of the Giant type; immense flowers of pure white, lightly marked with pale rose, splendid for cutting. Each, 15c; 1/2 doz., 90c; doz., \$1.75.

COLUMBIA—Light orange, scarlet splashed and blotched with bluish purple. Each, 10c; 1/2 doz., 60c; doz., \$1.00.

EMPRESS OF INDIA—Rich, velvety, dark red with deeper shadings. Each, 15c; 1/2 doz., 90c; doz., \$1.75.

KLONDYKE—Clear yellow, blotched maroon. Each, 10c; 1/2 doz., 50c; doz., 90c.

KUNDERD GLORY—The Ruffled Gladioli. Creamy white, striped crimson. Each, 10c; 1/2 doz., 60c; doz., \$1.00.

MINNESOTA KING—Creamy white, very showy and a great favorite. 2 for 25c; 1/2 doz., 60c; doz., \$1.00.

NIAGARA—Delicate cream yellow lightly marked with rosy-carmine in the throat. A very choice high-grade variety. Each, 15c; 1/2 doz., 90c; doz., \$1.75.

PANAMA—An introduction of sterling merit, is a favorite wherever high grade varieties are grown. It is similar to and has all the good qualities of America, but in color is a rich rose-pink. Unquestionably one of the finest. Each, 15c; 1/2 doz., 90c; doz., \$1.75.

PINK PERFECTION—A very beautiful apple blossom-pink suffused with chamolis. Each, 20c; 1/2 doz., \$1.10; doz., \$2.00.

PRINCEPS—The Amaryllis-flowered Gladiolus. A most striking variety. The individual flowers are 5 1/2 inches in diameter and sometimes one inch larger. The petals are very wide and rounded, well reflexed, forming an almost circular flower. The color is brilliant scarlet-crimson with three broad white blotches on the lower petals. Spikes produce 12 to 15 flowers and grow 4 feet in height. It is exceptionally healthy and its flowering is continuous. 2 for 25c; 1/2 doz., 70c; doz., \$1.25.

SCHWABEN—Pfitzer—Delicate pale yellow, dark blotch in center. Each, 20c; 1/2 doz., \$1.10; doz., \$2.00.

One each of the foregoing fourteen named Gladioli bulbs, \$1.75.

Clover Leaf Gladioli Mixtures

CLOVER LEAF MIXTURE—Gladioli mixtures can be purchased at almost any price and under almost any name, and it is a difficult matter for the purchaser to decide which is best. Our advice would be not to purchase small bulbs simply because they are quoted cheaper. Difference in cost is far more than compensated for in the better satisfaction obtained by planting the larger bulbs.

BULBS—Continued

This year we are offering our Clover Leaf Mixture in two sized bulbs, the only difference being difference in size, as the mixtures are exactly alike.

These mixtures are made up of Kelway's Seedlings, and varieties that in some way have got separated from their labels or markings.

The real worth of Kelway's Seedlings are well known and recognized, and by putting in all named varieties that for any reason have become unidentified, or which we wish to discontinue, assures the most ideal mixture that can be secured.

No. 1 Bulbs: 1/2 doz., 30c; doz., 50c; 50, \$2.00; 100, \$3.50.

No. 2 Bulbs: 1/2 doz., 25c; doz., 40c; 50, \$1.50; 100, \$2.75.

LILY OF THE VALLEY—One of the most satisfactory and charming spring flowering plants, producing in profusion its delicate bell-shaped delightfully fragrant white flowers. Lillies of the Valley thrive in any common soil, are perfectly hardy, and will succeed in shady situation. Selected tips, each, 5c; doz., 40c; 50, \$1.50; 100, \$2.75; postpaid.



Peonies

There is no hardy perennial which equals the Peony in beauty and usefulness. Once planted, the plants and flowers increase in size and beauty with age. They are as hardy as oaks and as handsome (many as fragrant) as roses. When the plants are through blooming they are as handsome and ornamental as most of the hardy shrubs. The plants are practically immune from insects. We would advise our customers to beware of "cheap" Peonies. An inferior variety will take as much care and space as a choice one, and the first cost of a Peony is nothing compared to the disappointment after years of waiting.

Festiva Maxima The Queen of Peonies



LILAC

CHARLEMAGNE—A very vigorous grower with strong stems and large, compact, globular flowers. Lilac white with a slight blush center. Each, 45c.

MONS. JULES ELIE—Probably the largest flowered Peony in cultivation; color pale lilac-rose with silvery reflex. Strong grower; pleasing fragrance and early. Each, \$1.25.

Pink

DUC DE CAZES—Bright pink shaded violet, lighter center and silvery reflex. Each, 50c.

EDULIS SUPERBA—This is the famous Decoration Day Peony. Color, a beautiful bright, clear pink, with silvery reflex. To those who want flowers on Decoration Day, buy Edulis Superba. 60c each.

L'INDISPENSABLE—Immense flowers of a delicate lilac-pink with darker shading toward the center. Tall, upright grower and profuse bloomer. A very desirable late flowering variety. Each, 50c.

MME. CALOT—One of the best of the early sorts; large flowers of a pale hydrangea pink color. Very delicate when cut in bud state. Each, 65c.

PURPLE

DELACHEI—Very large cup-shaped flowers, deep crimson-purple, a strong grower and free blooming mid-season variety. Each, 50c.

Red

FELIX CROUSSE—The ideal of self-colored red Peony, large, globular and compact, an even shade of bright red without trace of any other color; a strong, vigorous grower with long stems, making this variety one of the most important commercial cut-flower sorts. 75c each.

L'ECLATANTE—Very large, showy, compact, brilliant red flowers in clusters, vigorous growth, extra good commercial mid-season variety. Each, 50c.

MEISSONIER—Large convex blooms on long stems, guard petals brilliant purple red, center deep crimson. A splendid self-colored variety. Each, 50c.

MONS. KRELAGE—Deep currant red, with amaranth red center. Each, 50c.

One each of the foregoing four for \$2.00.

White

DUKE OF WELLINGTON—An ideal cut-flower variety, large, well-formed flowers on long stiff stems; color sulphur-white, quite fragrant, one of the finest mid-season sorts. Each, 45c.

FESTIVA MAXIMA—This truly superb variety, the finest white in cultivation, has for nearly three quarters of a century been the standard by which all other sorts have been judged. A giant in growth. No other variety combines the wonderful purity of color, freedom and earliness of flower, handsome foliage as this "Queen of Peonies." This variety is probably better known throughout the world than any other. Each, 65c.

MARIE JACQUIN—A variety especially adapted for landscape work, flowers semi-double, almost pure white with the yellow stamens partly visible in the center. Very aptly named "Water Lily Peony." Each, 50c.

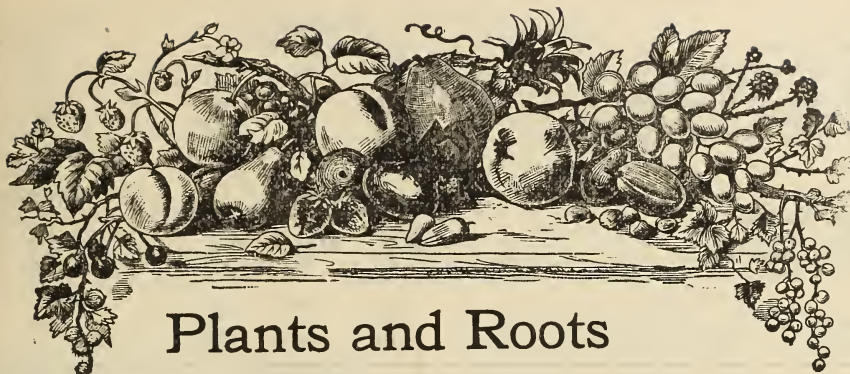
QUEEN VICTORIA—A strong growing, pure white variety with creamy white center. One of the most popular standard cut flower varieties. Each, 40c.

One each of the four whites, \$2.00. One each of the fifteen, nicely labeled and carefully packed, postpaid, \$8.00.

Tritoma, or "Red-Hot Poker"

Plant

TRITOMA PFITZERI—A great improvement upon the Tritoma Uvaria Grandiflora, blooming for a much longer period. It grows from four to six feet high; the flower-spike is often five feet high, and the flower measures twelve to fifteen inches long by four inches in diameter. They are a dazzling scarlet, lower half of flower tinged with rich orange. A clump makes a striking show. 35c each, or 3 for \$1.00.



Plants and Roots

The importance of a good foundation is readily acknowledged and this fact holds as good in the vegetable kingdom as under any other conditions, therefore it is of the greatest importance to select and plant only roots and plants that have been grown from a good ancestry. It is likewise true that one cannot always tell these things by merely looking at the plants or roots, therefore it is usually best to make your purchases from a house that has won for itself a

reputation by square dealing and by furnishing good, reliable stock. The selection of our seed is always given the utmost care, and then our plants and roots are attended to in such a way that insures the best growth and development.

We are able to supply the transplanted plants in most varieties, and would recommend these especially where there are only a few wanted. We would also recommend the 2-year-old roots in preference to 1-year-old.

PLANTS—FLOWERING Perennials and Annuals

Variety	Prices		Variety	Prices	
	Postpaid	Postpaid		Postpaid	Postpaid
	Doz.	100		Doz.	100
Alyssum	\$0.30	\$1.60	Mignonette	\$0.30	\$1.60
Asters .....	.30	1.50	Nasturtiums, tall .....	.30	1.60
Daisies .....	.30	1.60	Nasturtiums, dwarf .....	.30	1.60
Candytuft .....	.30	1.60	Nicotiana .....	.30	1.60
Carnations .....	.30	1.60	Pansies .....	.60-80	2.50-4.50
Cosmos .....	.35	1.80	Petunia .....	.35	1.80
Dahlias .....	.35	1.80	Phlox .....	.30	1.60
Dusty Miller .....	.30	1.60	Salvia .....	.35	1.80
Forget-Me-Not .....	.30	1.60	Snapdragons .....	.30	1.60
Geranium, 3-inch pots .....	.25 each	2.50 doz.	Stocks .....	.35	1.80
Heliotropes .....	.35	1.80	Sweet Williams .....	.30	1.60
Lobelia .....	.30	1.60	Verbenas .....	.30	1.60
Marigold .....	.35	1.80	Wallflowers .....	.35	1.80
			Zinnias .....	.35	1.80

PLANTS—VEGETABLES

Variety	Postpaid			Not Postpaid	
	Doz.	50	100	1000	5000
Brussels Sprouts	\$0.25	\$0.45	\$0.75	\$3.50	\$
CABBAGE—					
Early Jersey Wakefield, transplanted .....	.25	.60	.90	5.00	
Early Jersey Wakefield, not transplanted .....	.20	.45	.65	3.00	
All Head Early, not transplanted .....	.20	.45	.65	3.00	
Danish Ball Head, not transplanted .....	.20	.45	.65	2.50	10.00
Red, not transplanted .....	.20	.45	.65	4.00	
Copenhagen Market, not transplanted .....	.20	.45	.65	3.00	
CAULIFLOWER—					
Snowball, transplanted .....	.30	.85	1.15	7.50	
Snowball, not transplanted .....	.25	.60	.90	4.00	15.00
CELERY—					
White Plume, transplanted .....	.20	.60	.80	4.00	
White Plume, not transplanted .....	.20	.45	.65	3.25	15.00
Golden Self-Blanching, transplanted .....	.25	.60	.80	4.00	
Golden Self-Blanching, not transplanted .....	.20	.45	.65	3.25	15.00
Winter Queen, not transplanted .....	.20	.45	.65	3.00	13.00
Celeriac .....	.25	.85	1.15		
Egg Plant .....	.30	.85	1.15	6.00	
Endive .....	.30	.85	1.15		
Kale .....	.25	.85	1.15		
Kohl Rabi .....	.25	.85	1.15		
Mustard .....	.25	.85	1.15		
Parsley .....	.25	.60	.90		
PEPPERS—					
Ruly King, transplanted .....	.25	.60	.90	4.00	
Bull Nose, transplanted .....	.25	.60	.90	4.00	
Cayenne, transplanted .....	.25	.75	1.15	5.00	
Cherry, transplanted .....	.25	.75	1.15	5.00	
Sage, transplanted .....	.30	.85	1.15		

TOMATOES—	Postpaid			Not Postpaid	
	Doz.	50	100	1000	5000
Earliana, transplanted .....	.30	.60	.90	5.00	20.00
Earliana, not transplanted .....	.25	.45	.65	3.00	12.50
Dwarf Champions, transplanted .....	.30	.60	.90	5.00	20.00
Dwarf Champion, not transplanted .....	.25	.45	.65	3.00	12.50
Husk or Ground Cherry, transplanted .....	.30	.85	1.15		

Roots

Variety ASPARAGUS—	Postpaid			Not Postpaid	
	Doz.	50	100	1000	5000
Palmetto, 1 year old	\$0.25	\$0.65	\$1.00	\$5.00	\$22.50
Palmetto, 2 years old .....	.30	.90	1.25	7.00	30.00
Palmetto, 3 years old .....	.35	1.15	1.75	9.00	
Hop .....	.60	1.25	2.00		
Horseradish .....	.25	.50	.75	5.00	
Mint .....	.60	1.25	2.00		

	Postpaid			Not Postpaid	
	Each.	Doz.	50	100	500
Chives, small bunch, postpaid	\$0.15	\$1.00			
Rhubarb, 1 year old .....	.20	.90	2.50	\$3.50	10.00
Rhubarb, 2 years old .....	.25	1.25	4.00	6.00	16.00

STRAWBERRIES

AROMA—Among the best of the late ripening varieties. In comparison with the Gandy, it will be found that it commences to ripen a little earlier and will continue to the end of Gandy's season and is similar to it in size and productiveness. Quality the best of any, comes nearer being the true strawberry flavor than all others. Its shipping qualities are of the best.

CLARK'S SEEDLING—This variety originated in our state, a seedling of the old popular Wilson variety. Like the Hood River, a near relation, it is unsurpassed as a shipping variety and in some sections very prolific.

GANDY—A variety that has not yet today found its equal as a truly reliable and all-round late producing berry. The plant is a rampant grower, having strong fruit stems, holding a heavy weight of the fruit erect; slow in forming, and maturing, therefore coming into the market when the early and mid-season varieties are about done fruiting.

GLEN MARY—A bright, handsome, prolific, standard sort, grown the country over and perfectly reliable. Some large growers claim for this the par excellence in strawberries.

GOLD DOLLAR—An extra early variety originating in California. It is very productive and great promises are made for its future place in the strawberry world.

HOOD RIVER—The leading standard shipping variety. The berry that has made the town of its name famous, and its growers financially rich. Dark red color, uniform size, good quality, not too heavy in yield. A specialty berry

for the grower whose market is somewhat distant.

MAGOON—Of first quality, great productiveness, attractive shape and color; good for canning.

MARSHALL—Produces remarkably large, beautiful fruit, resembling the far-famed Glen Mary, that we are pleased to add it to our list and put it in the Magoon and Senator Dunlap class, which is sufficient to guarantee its favor.

OREGON—This variety is of late introduction and somewhat resembles the old Wilson type of a strawberry. With a fadeless, dark red exterior; the deep red color is extended clear to the center of the fruit. Exceptionally fine for canning and attractive in the box. Any variety that we offer will fertilize it except Gandy or Aroma.

SENATOR DUNLAP—Its color is a rich dark red, with glossy finish. It has become a very popular variety, perhaps on account of its uniformity.

WARFIELD—The most popular pistillate variety grown. It is a large, beautiful, cone-shaped berry with a fadeless, dark red exterior; the deep red color is extended clear to the center of the fruit. Exceptionally fine for canning and attractive in the box. Any variety that we offer will fertilize it except Gandy or Aroma.

WM. BELT—Nothing better for quality, shape and attractiveness. A reliable and trustworthy variety; ripens evenly; prolific and will meet the expectations of the most fastidious.

	Postpaid				By Express—Not Postpaid				
	Doz.	25	50	100	200	300	400	500	1000
AROMA (S)	\$2.25	\$4.00	\$6.00	\$1.10	\$1.40	\$2.00	\$2.25	\$2.50	\$5.00
CLARKS SEEDLING (S) .....	.25	.40	.60	1.10	1.35	1.80	2.00	2.25	4.50
GANDY (S) .....	.25	.40	.60	1.10	1.40	2.00	2.25	2.50	5.00
GLEN MARY (S) .....	.25	.40	.60	1.10	1.40	2.00	2.40	2.75	5.50
GOLD DOLLAR (S) .....	.25	.40	.60	1.10	1.40	2.00	2.40	2.75	5.50
HOOD RIVER (S) .....	.25	.40	.60	1.10	1.35	1.80	2.00	2.25	4.50
MAGOON (S) .....	.25	.40	.60	1.10	1.35	1.85	2.25	2.50	5.00
MARSHALL (S) .....	.25	.40	.60	1.10	1.40	2.00	2.40	2.75	5.50
OREGON .....	.25	.40	.60	1.10	1.40	2.00	2.40	2.75	5.50
SENATOR DUNLAP (S) .....	.25	.40	.60	1.10	1.35	1.85	2.25	2.50	5.00
WARFIELD (P) .....	.25	.40	.60	1.10	1.40	2.00	2.25	2.50	5.00
WM. BELT (S) .....	.25	.40	.60	1.10	1.35	1.85	2.25	2.50	5.00
SUBERB-PROGRESSIVE (Everbearing) .....	.60	1.10	1.60	2.25	3.50	5.00	6.25	7.50	15.00

SUPERB AND PROGRESSIVE—As is well known what has been called everbearing strawberries has not fully come up to the expectation of the planter, as they have been everbearing in name more than in fact. These two varieties have been tested for a number of years and last season (1917) produced strawberries in the Spokane Valley from July until November.

Seed Potatoes

CULTIVATE—Potatoes can be grown in any soil, provided it is well drained, but, if grown on sandy, rich soil, they will be of better quality than if planted on clay soils. Sod land is most excellent for this crop. It is best to put the manure on one year before the potatoes are to be planted, and in no case raw stable manure should be used, as it is liable to give the scab. In cutting potatoes for planting, do not cut the pieces too small and be sure to have 1 to 3 eyes on them. The constant use of very small tubers should be avoided, or they are likely to run out. The sets should be planted from 3 to 4 inches deep, according to the time of planting, in rows 3 feet apart and 16 to 18 inches in the rows.

PRICES—Owing to the great uncertainty regarding values we are unable to make definite prices at present, but quote approximately as follows: Less, than 25 lbs., 5c; 25c lbs., \$1.00; 50 lbs., \$1.75; 100 lbs., \$3.00; add postage. If you are needing a quantity we prefer that you write for prices, as these prices are not guaranteed. Unless otherwise advised we will send full value at prices prevailing at time of shipment for money received. If desired by Parcel Post, postage must be added.

Early

OHIO—A leading early sort, earlier than the Early Rose, but not so productive. Round, short, and thick tubers, smooth and solid; cooks dry and mealy and matures very early.

ROSE—This variety has been a great favorite for many years and many growers still claim that it has never been excelled in quality and productiveness. Potatoes are long in shape, good size and light pink in color at the bud end. They cook mealy and are of the finest flavor.

SIX WEEKS—This is recognized as being one of the very earliest varieties grown, and in addition it is also one of the best yielders of the early varieties. Besides these two very important advantages, it possesses a third, namely: Its quality; and quality is the great pivotal point at which we are aiming in the production of all our seeds, plants and roots.

LATE

BURBANK—Continues in good demand and is more largely used than any other. It is of good size, of fine form and an excellent yielder. The flesh is white, very mealy and of fine flavor and quality.

MacGREGOR—This new, late potato originated in Manitoba about six years ago and it immediately became a general favorite. In appearance it closely resembles the old, well-known Carmen No. 3, same shape, with nice white netted skin, a grand good cooker at all times, a remarkable keeper and a tremendous yielder. One of the most noticeable features of this potato is its wonderful vigor.

NETTED GEM

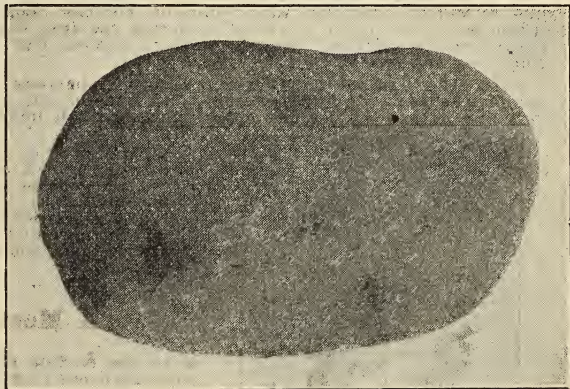
The hardest, most vigorous in growth, most productive, and the best in table quality of all potatoes. It has proved to be unequalled for main crop. The vines are strong, with deep green foliage. In form the tubers are medium long. The eyes are small and there is very little waste in paring. The skin is thin and very smooth with the exception of very small depressions which give it the appearance of being netted and from which it derives its name. The flesh is fine grained and cooks up mealy white. It is very free from scale and one of the very best keepers on the market.

MEDIUM

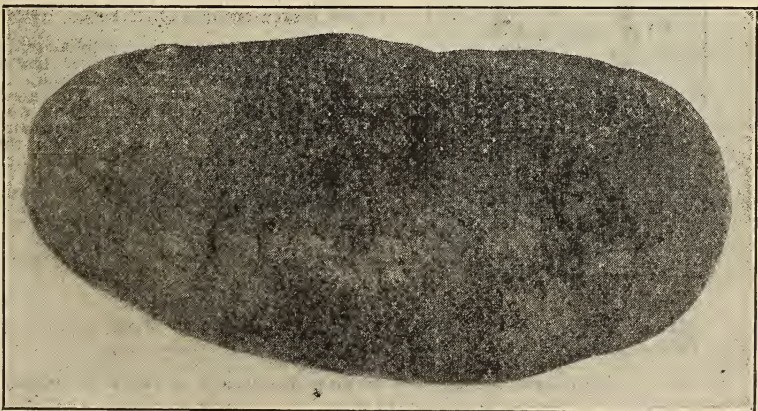
IRISH COBBLER—The tubers are round, somewhat flattened with rather deep eyes and are medium to large in size. The skin is smooth, finely netted, and white in color. Flesh white of fine quality and flavor.

This is a very vigorous grower, far less liable to knot and crack than many varieties and is nearly immune to the internal brown spot that affects some other sorts. It is a splendid shipper.

MICHIGAN—This is a second early, rather long, white potato, which produces in time to command the high early market prices and yet yields a crop which compares favorably with the standard late kinds and twice as heavy as the earlies.



MacGregor



Netted Gem

INOCULATE

ONE ACRE
\$1.00

Postpaid \$1.10

Nodule-Bacter

FIVE ACRES
\$4.00

Postpaid \$4.25

GUARANTEED PURE CULTURE INOCULATION

Pure-Bred Bacteria an Economic Necessity

"The importance of using selected seed for all crops has been so amply demonstrated that no argument in favor of the practice is needed. It is the very foundation of progress in plant culture. Soil bacteria are no exception to the rule, and pure-bred bacteria for specific work are as clearly an economic necessity as pure-bred cattle or pure-bred sugar beets."—Ext. Yearbook of Dept. of Agriculture for 1906.

Pure Culture Method Cheapest and Most Efficient

"All legumes grown either for the purpose of enriching the soil or for the crop must, in order to be of the greatest benefit to the land and the plants, be provided with the nitrogen-fixing bacteria. It is believed that the artificial culture is the method most efficient, cheapest, and freest from objectionable qualities."—Ext. Bulletin No. 71, Bureau of Plant Industry.

Legumes Without Bacteria Rob the Soil of Nitrogen

"The peculiar value of legumes for maintaining and increasing the fertility of soils is due to certain bacteria which develop nodules upon the roots of leguminous plants and which have the unique power of rendering the free nitrogen of the atmosphere available for plant growth. Without these bacteria, legumes, like other crops, exhaust the soil of its combined nitrogen."

Legumes without the presence of proper bacteria rob the soil of nitrogen, making it poorer, the same as do other crops, and since nearly all soils are short of nitrogen, it is very important that legume crops should be soil builders, not soil robbers.



Legumes when supplied with strong, active nitrogen-gathering bacteria of the proper kind are enabled to produce larger yields and also enrich the land. Inoculation does double work: First, improving the crops inoculated; and, second, enriching the soil to grow good crops of the kinds which cannot be inoculated. Some soils may contain enough of the proper bacteria, however, many soils do not.

A Most Paying Investment

is to use Nodule-Bacter on your legume crops to bring your worn-out land to a permanently productive condition and to keep your productive land from becoming exhausted. Nodule-Bacter and legumes enrich your land with nitrogen and humus. Land rich in humus and nitrogen grows larger crops and of better quality.

We want our customers to acquaint themselves with the price on nitrogen-gathering bacteria sold by other seedsmen under various trade names, such as Nitragin, Farmogerm, etc. You will find invariably that the prices are about \$1.00 an acre higher than we are quoting on the pure cultures which we can furnish you. We supply these cultures to our customers for the reason that they produce best results and are sold at reasonable prices.

Nodule-Bacter is delivered in 1 and 5 acre size bottles ready to use. Complete directions on each package. Seed for 25 acres can be inoculated in 15 minutes.

Nodule-Bacter is prepared for the following crops:

Alfalfa
Alsike Clover
Crimson Clover

White Clover
Red Clover
Sweet Clover

Canada Peas
Garden Peas
Vetches

Garden Beans
Sweet Peas

When ordering be sure to give the names of crops to be inoculated.

1 Acre size, \$1.00; postpaid, \$1.10.

5 Acre size, 4.00; postpaid, 4.25.

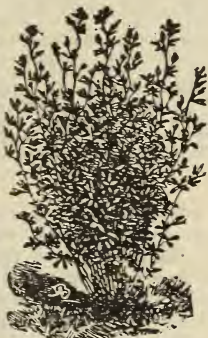
Clover

Great care should be exercised in purchasing grass and clover seeds. This is even more important than with other seeds, for, on account of being perennials, and the land not being cultivated, the farmer has not an opportunity to cultivate and thus destroy any weed seeds that might be sown with grasses and clovers.

Owing to the market changes we cannot quote prices. When ready to buy write us for prices, stating quantity wanted, or if you send money, we will ship seed to cover amount sent.

Alfalfa or Lucerne

Alfalfa has long been in many states and is fast becoming in this state a crop of inestimable value. Its chief merit lies in the fact that it may be cut from 2 to 4 times a season, each cutting bringing enormous yields of sweet and nutritious forage which is much relished by all kinds of stock. Care should be taken when cattle are first turned in not to allow them to overfeed, as it is liable to cause bloating. It is an excellent selling crop and makes the best hay when properly treated, being in itself the nearest approach of any farm product to a perfect ration. The seed should be sown broadcast at the rate of 12 to 20 pounds per acre about the middle of April or earlier, should the ground be in good condition, without a nurse or cover crop. The soil must be deep, rich and well drained, and the seed bed well prepared. The greater the effort and care taken in the latter respect the more certain the probability of a successful catch. The soil should receive a deep, early plowing, followed by frequent rolling and harrowing until the surface is in as perfect a condition for seeding as possible. The seed should never be sown on heavy, sticky clay land where water stands a short distance below the surface.



ALFALFA.

Essential for Best Results

SOIL—Well drained. Fertile. Free from weeds.

SEED BED—Deep plowing. Firm seed bed. Thorough pulverizing.

SEED—Think more of quality than price.

ALFALFA (American Grown)—It looks now as if alfalfa was going to be very high and scarce, owing to European conditions and the seeming impossibility of importation. As this catalogue is given to the printer we have a supply of non-irrigated Kansas-grown alfalfa seed in our storage rooms, and believe when this stock is exhausted prices will be higher. Write for prices, stating amount wanted. **Lb., 40c, postpaid.**

BOKHARA, OR SWEET—A variety of clover which, when young, resembles in growth alfalfa, but on mature development grows from four to six feet in height. It is extremely vigorous and especially adapted to waste lands, though by many prominent farmers and stock-raisers is used on good land for a crop forage. It is very vigorous growth, standing frost and drouth remarkably well, the tap roots penetrating the soil very deeply, and occasionally used as a drainage plant for wet soils. It will grow on almost any barren hillside, in bottoms, and is equally adapted to all good farming lands. Sweet clover is one of the most valuable of all crops for bees, being the main honey plant in many sections.

ALSIKE, or SWEDISH (*Trifolium Hybrum*)

—A perfect hardy variety which is rapidly growing in popular favor. It yields large crops of excellent hay and under favorable conditions may be cut several times during the season. It is also valuable for bees. It is well calculated to resist both drouth and excessive moisture. The hay of this variety is greatly preferred by some to that of Red Clover, for the reason that it is generally finer, brighter and not so dusty, making it better for horses. **Lb., 45c, postpaid.** Write for prices, stating amount wanted.



Alsike Clover

YELLOW BLOSSOM—(*Melilotus Officinalis*)—This variety belongs to the same family as White Blossom Sweet Clover, but it is not so prolific in growth, will not produce so large a tonnage, does not grow quite so tall, but is from ten days to three weeks earlier.

The flowers are yellow instead of white. For bee pasture and fertilizing purposes, we believe it to be equally valuable, but for hay or pasture it is not so desirable. **Lb., 40c, postpaid.** Write for prices, stating amount wanted.

WHITE BLOSSOM OR BOKHARA (*Melilotus Alba*)—This lives two years and then dies. It is the variety commonly referred to when "Sweet Clover" is mentioned and is the best for general use.

It is an erect branching biennial plant with woody stems, the first season growing 1½ to 3 feet high and developing a large root, in which is stored food material for the second season's growth. The growth the second season usually reaches a height of 4 to 7 feet. It bears flowers and seed the second season and then the plant dies, so it is readily controlled by cutting before it goes to seed, which will prevent any seed being self sown. **Lb., 40c, postpaid.**

Write for prices, stating amount wanted.

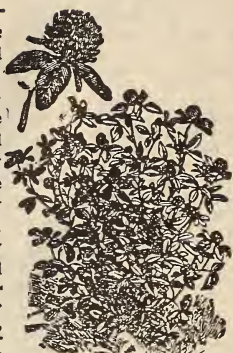
CRIMSON, OR SCARLET (*Trifolium Incarnatum*)—Highly recommended for pasture and fertilizing purposes. It is a thrifty annual, growing from twenty to thirty inches high, and has a beautiful crimson blossom. It germinates quickly, grows rapidly and stools abundantly. **Lm., 35c, postpaid.** Write for prices, stating amount wanted.

ESPERETTE, OR SAINFOIN (*Onobrychis Sative*)—A deep rooting, perennial legume, extensively cultivated on dry, calcareous soils which are too barren for clover or alfalfa. It is rather difficult to establish, as plants are easily killed when young, but when once rooted, will live from ten to twenty years. **Lb., 35c, postpaid.** Write for prices, stating amount wanted.

RED MAMMOTH—Being a rank grower makes it most valuable for fertilizing purposes. Foliage, flowers and stem much darker than common Red Clover; ripens later than the latter, about the time Timothy Red Top and other grasses ripen, making thereby a much better quality of hay, when mixed with them. **Lb., 45c postpaid.** Write for prices, stating amount wanted.

CLOVER—Continued

RED MEDIUM (Trifolium Pratense)—The standard clover for all purposes, either hay, pasture or for improving and enriching the soil. It is hardy and succeeds well on any good soil. It yields the heaviest crop of any clover except alfalfa, and makes superior hay—especially if mixed with timothy—either for dairy cows or for general use. **Lb., 45c, postpaid.** Write for prices, stating amount wanted.



RED CLOVER.

WHITE DUTCH (Trifolium Repens)—A low, close-growing clover with white blossoms, very fragrant. It does not attain sufficient height to be profitable for hay, but is superior for pasture, either for cattle or sheep, and unsurpassed for the production of honey. It also makes a beautiful lawn when mixed with Blue Grass. Fancy for lawn. **Lb., 75c, postpaid.** Write for prices, stating amount wanted.

GRASSES

BLUE CANADIAN (Pea Compressa)—A hardy variety growing on poorest and driest soils. Short (6 to 8 inches), hardy and wiry but high in nutritive value. Decidedly blue in color. Stems flattened. Invaluable for use on steep places or exposed situations. **Lb., 35c, postpaid.** Write for prices, stating quantity wanted.

BLUE, ENGLISH OR MEADOW FESCUE (Festuca Pratensis)—A variety growing three to four feet high. Roots, deep, and resists drouth better than most grasses. It succeeds on any ordinary soil; yields a heavy crop of superior hay; one of the best grasses for pasture. Valuable to mix with other kinds. **Lb., 35c, postpaid.** Write for prices, stating quantity wanted.

BLUE KENTUCKY—This makes the best, sweetest and most nutritious pasture for all kinds of stock. This grass is the first to start up in the spring and remains green until snow flies in the fall. It is very hardy and is uninjured by cold or dry weather, hot sun or tramping of hoofs. The roots are so thick and stout as to form a tough sod. Blue grass requires about two years to get well started and for that reason it is often sown in mixture with other grasses. It will do well on almost any land. Sometimes called "June Grass." **Lb., 50c, postpaid.** Write for prices, stating quantity wanted.

KENTUCKY
BLUE GRASS.

BROMUS INERMIS (Awnless Brome Grass)—Drouth defying, frost resisting. It adapts itself to almost every condition of soil and climate and to any use to which grass may be put, equalling in quality and rivaling in yield almost any other grass. The roots push through the soil and form fresh plants on every side. It starts from two to three weeks earlier in the spring than native prairie grass and it keeps green in the autumn longer than any of the useful grasses grown in the West. No amount of cold seems to be able to kill it. It bears up well under hot summer suns. It is an abundant producer of leaves and is much relished as pasture and hay. **Lb., 40c, postpaid.** Write for prices, stating amount wanted.

CREeping BENT—Specially adapted to moist lands and those which are occasionally overflowed. Its peculiar habit of branching underneath the surface enables it to resist to the greatest extent tramping and pasturage. Distinctive on account of its compact, creeping, rooting stems. Of rapid growth and spreading habit, forming a strong, durable turf. Fine for lawns and putting greens because of its fine texture. **Lb., 75c, postpaid.** Write for prices, stating amount wanted.

ORCHARD—It stands the drouth, grows well in the shade, does well in wet or poor ground. This grass furnishes excellent pasture three weeks before any other, and after close grazing ten days' rest is sufficient for another growth. Cows fed on this will produce more and richer milk than on blue grass. It makes a very heavy sod and when well set remains for many years. It is especially adapted for winter grazing, as it remains green all season. **Lb., 40c, postpaid.** Write for prices, stating quantity wanted.



ORCHARD GRASS.



RYE, ENGLISH (Lolium Percune)—This is a valuable pasture grass which will bear close cropping. Produces an abundance of foliage, which remains bright and green during the season. The hay is relished by all kinds of stock. It will grow well on almost any land but does better in cool, moist locations. **Lb., 30c, postpaid.** Write for prices, stating quantity wanted.

RYE, ITALIAN (Lolium Italicum)—A quick-growing grass, attaining a height of 2½ to 4 feet. Thrives best on soils that are slightly moist, and will even stand considerable overflow. Grows easily and bears an abundance of foliage that makes the best and sweetest hay imaginable. **Lb., 30c, postpaid.** Write for prices, stating quantity wanted.

TALL MEADOW OATS (Avena Elatlo)—A hardy perennial much used in the south and west. Its roots penetrate deep, and it thrives on any good soil. It yields a heavy crop and is valuable for both meadow and pasture. **Lb., 40c postpaid.** Write for prices stating amount wanted.

GRASSES—Continued



TIMOTHY.

TIMOTHY—On moist, loamy or clay soils it produces a larger hay crop than any other grass. It is not so well suited for light, sandy soils. Though preferring a moist, temperate climate, it withstands extreme heat and cold. Its hay is very nourishing and can be preserved for a long time. It should be cut when flowering, as, if left later, the hay becomes hard and coarse. It is often sown along with Red Clover, and the nutritive value of the hay is greatly increased by the mixture. Height, 2 to 3 feet. Lb., 25c postpaid. Write for prices, stating amount wanted.

RED TOP (*Agrostis Vulgaris*)—A valuable grass for moist, rich soils where it thrives very luxuriantly. It is a good variety to sow with Timothy and Clover for meadow or pasture and is more permanent than either of the other two. It should be fed close, as, if it is allowed to grow up to seed, the cattle dislike it. On good soil it grows about two feet high; on poor gravelly land about half that height. It has been grown successfully even on alkali land where other grasses failed. Red Top is commonly known as Herd's Grass and it should be more extensively grown, especially in combination with other grasses. Hulled seed, lb., 40c, prices, stating amount



RED TOP GRASS.

postpaid. Write for prices, stating amount wanted.

SUDAN GRASS was introduced into the United States in 1909 from Sudan under the name of Garawi. One-half pound of seed was received and the results were so very promising that plans were immediately made for testing it out thoroughly in all parts of the United States. As a result of these tests the Department of Agriculture reports that Sudan Grass will be of the greatest value in the states that are deficient in rainfall. These dry regions have no other satisfactory hay crop and Sudan Grass will be of immense value there.

Sudan Grass is strictly an annual and dies each year, reaching a height of from seven to nine feet. The stems are small and rarely thicker than a lead pencil. The plant stools wonderfully and produces under favorable conditions as many as 100 stalks from a single root.

All stock relish the hay and thrive on it. Yields of from two to four tons per acre are common and under irrigation they run as high as eight to ten tons to the acre.

SEEDING—Sudan Grass should not be planted until the soil has become warm in the spring. Planting in cold soil only delays germination and dwarfs the early growth. It can be sown any time during the summer as a catch crop so long as 70 to 80 days intervene before the

date of the first expected frost. Sudan Grass can be sown in rows 18 to 42 inches apart and cultivated like corn, or it can be drilled in with a grain drill or sown broadcast by hand. In the semi-arid sections it is much more profitable to seed it in rows and cultivate. The rows should be as close together as the tools available for cultivation will permit. Seeded in rows 36 to 42 inches apart, 2 to 3 pounds per acre of good seed are sufficient. In rows 18 to 24 inches apart 4 to 6 pounds, and drilled or broadcast 16 to 24 pounds per acre are required.

HARVESTING—When cut for hay it is best to cut just after full bloom, so that it will have as much time as possible for a second growth. After cutting it renews its growth promptly when moisture conditions are favorable, and in about 40 to 50 days another cutting is ready. The grass stools abundantly after first cutting.

It is interesting to note that while Sudan Grass is very drought-resisting and makes good yields in dry sections, it also does exceedingly well under irrigation and under the latter conditions makes enormous yields of hay.

Summing it all up, Sudan Grass is a hay crop which seems to be especially adapted to the drier regions of the western states. There is always a big demand for hay and it is hard to estimate the value of a grass that will produce with certainty a good crop of hay in our western states.

Price, Lb., 40c, postpaid. Write for price, stating quantity wanted.

Lawn Grass

A beautiful lawn adds greatly to the appearance of a home. In the making of a lawn two things are very important, namely: preparation of the seed bed, and quality of the seed sown.

The most important thing to consider in selecting seed for lawn grass is to obtain a proper mixture of several varieties, for two reasons: First, each variety is at its best during a certain part of the season. By properly choosing early, medium and late grasses, a smooth, even, green lawn is assured from early spring to late autumn. Second, a given area can support only so many grass plants of one kind, for they all absorb the same sort of food, but if several varieties are sown, the same area will support many more plants, as different sorts live on various elements in the soil. With these facts in mind our Clover Leaf mixture has been scientifically combined. Our experience of many years has given us an intimate knowledge of grasses, their habits and requirements. Strangers visiting Spokane frequently comment upon the beauty of our public parks and lawns. Our Clover Leaf mixture is used very extensively on both of these, in fact there is more of it used than all other mixtures combined.

In order to keep a lawn continually beautiful, it should receive frequent applications of fertilizers.

CLOVER LEAF LAWN GRASS—Lb., 60c, postpaid. Write for prices, stating quantity wanted.

Millets

The Millets are a valuable crop for the farmer who has lost his seedling, or for some other reason expects to be short of hay, for in 8 or 10 weeks from sowing it is ready to cut for hay.

Hungarian and Siberian Millets are the earlier varieties. Millet can be sown as early as the middle of May, or as late as July 10th, although when sown July 10th, the crop comes so late in September that it is hard to cure on account of the cool weather and shorter days.

Write for prices on Millets, stating quantity wanted. All Millets, unless otherwise quoted, single lb., 20c, postpaid.

MILLETS—Continued

GERMAN—This grows very rank and is one of the best varieties for hay or fodder. On good, rich soil it will make a growth of 4 or 5 feet high, and although the hay may seem coarse, yet it is so tender that if cut at the right stage, which is when in full bloom, even the hogs will eat the cured hay quite greedily.

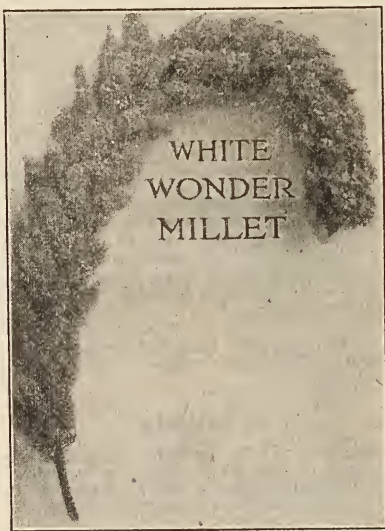
HOG—Very rich and thus especially valuable as a hog food. A very much prized peculiarity of this millet is that the seed ripens while the stem is yet green; thus, if cut promptly can be threshed for the seed, while the hay after being threshed will make excellent fodder.

HUNGARIAN—Is of fine growth, and makes an excellent hay. It has numerous succulent leaves, which furnish an abundance of green fodder, relished by all kinds of stock.

JAPANESE—Is of recent introduction and great claims are made for it as to productiveness and value as a forage plant. Its introducers say that it is a marvelous grower and luxuriant stooler. Recommended highly for feeding dairy cattle, young stock and sheep, being very rich in nutritious elements. Grows from four to seven feet tall, but is not harsh and woody, as other grasses are. In some sections of the country it is known as Barnyard Millet, while in other parts of the country it has been erroneously introduced under the name of Billion Dollar Grass by some seed houses.

SIBERIAN, OR RUSSIAN—Is claimed to be the most wonderfully productive and satisfactory forage plant, possessing in a superior degree all the essential merits of any of the older sorts. The claims made by its introducers are that it is from two to three weeks earlier than the German Millet, is a much heavier cropper, that the hay is much finer, stalks more elastic and grows much taller, that it is rust-proof, and being of stooling habit, requires much less seed per acre.

All Millets, unless otherwise quoted, single lb., 20c, postpaid. Write for prices on all Millets, stating quantity wanted.



WHITE WONDER MILLET—A Russian soldier, serving in the Russo-Japanese War, discovered this wonderful millet in China. He put a little of the seed in his knap-sack and when the war was over he came to the United States bringing his precious packet of seed with him.

White Wonder Millet has been raised in Western Kansas for several years and it is just as hardy and vigorous as other millets.

The most striking feature of White Wonder Millet is the size of the heads. The heads will run from eight up to eighteen inches and a single head will have as many as 15,000 seeds.

The yield of White Wonder Millet is extremely heavy, being fully half again as heavy as that of German Millet. Some growers of White Wonder Millet claim that it will outyield other millets three to one.

Another very desirable feature of White Wonder Millet is its earliness. This variety is much earlier than German Millet, but not quite as early as the Siberian variety.

The foliage is very heavy, the leaves broad, and therefore produces an immense amount of excellent fodder which cures very readily.

We believe that on account of the earliness, the immense yield of both grain and fodder, and the very vigorous growth which leave the ground clean, White Wonder Millet will soon take first place among the millets. **Lb., 15c; take first place among the millets. Lb., 25c, postpaid.** Write for prices, stating quantity wanted.

Peas, Field

Field Peas are a very profitable crop and should be grown very extensively. They can be grown alone or with oats. When planted with grain and cut green they make a large amount of very rich feed; also very valuable for enriching the soil if plowed under. The dry peas make excellent hog feed and are quite fattening.

Write for prices on all field peas, stating variety and amount wanted.

CANADIAN WHITE—A leading kind; seed almost white; a heavy cropper. **Lb., 20c, postpaid.**

BANGALIA—This variety has been highly recommended by our State College at Pullman, on account of its great yield. It is earlier than the other varieties of field peas, less liable to crack in threshing, has finer straw and makes better fodder, and the peas are green in color. **Lb., 20c, postpaid.**

COW—Cow Peas are more tender than Canada or Field Peas and should not be sown until corn planting time. Cow Peas, being of very rapid growth during the warm weather, can be sown as late as the middle of July with reasonable assurance of a profitable crop, either for harvesting or plowing under. Are really small beans of vigorous vining habit and heavy foliage of great nutritious value, yielding five to nine tons of green feed per acre.

NEW ERA COW PEAS—A new, extra early variety, the quickest growing of any of the Cow Peas, maturing in about 60 days; specially adapted for planting north. **Lb., 25c postpaid.**

WHIPPOORWILL—A brown, speckled, medium sized pea. A very prolific seed yielder; matures about ten days later than the New Era; upright and vigorous grower. **Lb., 25c postpaid.**

Write for price on all field peas, stating variety and amount wanted.

Rape

DWARF ESSEX—Has been usually grown, until recent years, to furnish pasture for sheep and lambs, but is now being found equally good in providing pasture for all kinds of stock. Perfectly hardy and of remarkable fattening properties. Easily grown. Pigs, sheep and cattle are all extremely fond of it. A very rank grower and bears heavy manuring and high cultivating. Sow at intervals of several weeks and secure a supply of good feed. Sow in June. Rape should be fed in August, though if a first crop be cut about four inches from the ground an aftergrowth would be useful later. If soil is

RAPE—Continued



rich and clean sow broadcast, otherwise in drills and cultivate same as corn. Can be sown on wheat stubble, furnishing excellent pasture late in the fall. Lb., 30c, postpaid. Write for prices in quantities, stating amount wanted.

Vetches

SPRING — A pealike plant grown extensively in England and to a considerable extent in Canada for stock feeding, but not as much used in the United States as it should be. Lb., 25c, postpaid.

WINTER-SAND OR HAIRY (*Vicia Villosa*) — This is a very valuable forage plant—and becoming more popular every year. It belongs to the pea family, but the vines are much longer and the foliage more abundant — it improves the soil, being a great nitrogen gatherer. It is advisable to sow oats, barley or rye, etc., with Vetch, which serves as a support for the plants. It succeeds



on almost any soil and should not winter kill. A sowing in August or September covers the ground before winter and prevents washing during the winter and early spring. Can also be sown in April and will be ready to cut by the middle of July, the second growth affording excellent hog pasture during the summer. The yield of forage varies from ten to fifteen tons per acre, equal to three or four tons when cured as dry hay. Lb., 40c, postpaid. Write for prices on vetches, stating variety and amount wanted.

Buckwheat

JAPANESE—This variety excels all others; yield much heavier; ripens one week to ten days earlier; stands up better and makes better flour. Excellent for bee pasture. Lb., 25c, postpaid.

SILVER HULL—A very good and popular variety. Grain is of light gray color; has a thin husk; matures early and yields heavy. A good milling variety. Lb., 25c, postpaid. Write for prices on buckwheat, stating kind and amount wanted.

Miscellaneous Field Seeds

Write for prices on all varieties of field seeds, stating quantity wanted.

BROOM CORN, IMPROVED EVERGREEN—This is the most popular variety of broom corn to grow for the market, the brush being firm and of good length, and retaining the light green coloring when properly cured. Lb., 25c, postpaid.

EGYPTIAN CORN (also called Jerusalem Corn or Dhoura)—One of the non-saccharine sorghums, requiring the same growing conditions. Seeds well in dry sections. Producing small heads on side shoots up to eight on a stalk, the seed is larger than Kaffir corn; yield is heavy. See our notes on Sugar Cane. Lb., 25c, postpaid.

KAFFIR CORN—Grows 4 to 5 feet high. The stem or stalk bears numerous wide leaves. The stalks are brittle and juicy, not hardening like other varieties of sorghum. It makes excellent fodder, either green or dry, which is highly relished by cattle and all kinds of stock. See our notes on Sugar Cane. Lb., 20c, postpaid.

FETERITA—A wonderful new grain which has attracted much favorable attention in Kansas, Missouri and Oklahoma. It belongs to the Sorghum family. Was introduced from Africa by the United States Department of Agriculture. The advantages claimed for Feterita are its drought-resisting qualities, its heavy yield, its earliness, its stooling propensities and its freedom from insect pests. Feterita has successfully withstood dry weather in Kansas and other states. It branches very freely from the roots, making a single stool. It is from two to three weeks earlier than Kaffir Corn. See remarks under Sugar Cane relative to a thorough trial. Lb., 25c, postpaid.

FLAX SEED (Recleaned for Planting)—Lb., 30c, postpaid.

THOUSAND HEADED KALE—The great demand for this wonderful forage plant proves it to be the most valuable green feed for Pacific Coast dairy and stockmen; endorsed by Agricultural Colleges and Government stations. Postpaid, oz., 10c; 1/4 lb., 20c; 1/2 lb., 30c; lb., 60c.

LENTILS—Succeed best in dry, sandy soil. A leguminous annual, the seeds of which are valuable for pigeons and are used largely for soups. The leafy stalks make good forage. Lb., 35c, postpaid.

MILO MAIZE—This is one of sorghums similar to Kaffir Corn. Grows erect, with thick, close-jointed stalk. Height, 4 to 7 feet. Heads are very large, giving a heavy grain yield; is drought resistant, and succeeds on alkali soil. Plant late when ground is warm. See remarks under Sugar Cane relative to a thorough trial. Lb., 25c postpaid.

MISCELLANEOUS FIELD SEEDS—Continued

SUGAR CANE is supposed to be grown to advantage any place where you can produce a good crop of corn. In sections where it can be grown profitably it has several advantages over fodder corn, as it is said to produce more feed and to be more drouth resistant. It is highly recommended for feed for cattle, sheep and pigs. From our knowledge of this article and our knowledge of the Inland Empire we would recommend the farmers to give this a thorough trial, but do not think it would be wise to go into it extensively until you have demonstrated that it can be grown profitably in your particular location.

EARLY AMBER—This is the earliest, richest and altogether the best sort for northern latitudes. As a fodder plant we believe this excels all other varieties, as it is sweeter, contains more nutriment and is more relished by stock. **Lb., 25c, postpaid.**

SUNFLOWER, MAMMOTH RUSSIAN—The largest and most productive variety. Heads often 12 to 20 inches across. Every farmer should plant a few rows at least. It makes one of the very best of foods for poultry; a great egg producer. **Lb., 25c, postpaid.**

Write us for prices on all field seeds, stating kind and amount wanted.

GRAIN

The great importance of sowing thoroughly re-cleaned grain is getting to be more and more recognized by the progressive farmer. Besides being thoroughly re-cleaned the seed should be selected with the greatest care, as there are sometimes foreign seeds in the different grains so nearly the size of the grain itself it becomes almost impossible to make a separation. In selecting grain for seed purposes it should be selected because that each grain has been well filled and thoroughly matured, because it has all ripened at the same time, and because of its freeness from all seeds that can not be separated from the grain. In selecting our grain for seed, all of the foregoing points are taken into consideration, then it is given a thorough re-cleaning, and as a result we are able to put on the market a strictly number one article. Kindly write us, asking for prices and state the amount wanted. Stating the amount is very important, as we do not know whether an inquirer wants one hundred pounds or a ton. In case amount is not stated we always quote price on a small amount. You are therefore depriving yourself of our best prices should you want a quantity.

Write for prices on all varieties of grain, stating kind and amount wanted.

Wheat

There is wheat and wheat, and it is penny wise and pound foolish to sow inferior quality. This inferior quality may be because the grains have not been fully developed, or on account of impurity, or on account of improper cleaning. We guard against all three, hence our quality is right.

Winter—Jones Fife, Martin Amber, Gold Coin. **Spring**—Bluestem, Marquis. Early Bart.

Early Marquis possesses three remarkable qualities: Remarkably early, exceedingly productive, unexcelled in milling qualities.

Earliness—It is from one week to ten days earlier than Red Fife. This is important, as this week or ten days may mean the difference between a full crop and a failure or a partial failure.

Productiveness—Marquis Wheat has outyielded all other Spring Wheat, with the exception of Early Bart, grown under the same conditions of soil, cultivation and climate. The increased yield varies from 5 to 10 bushels per acre.

Quality—Marquis Wheat has by numerous milling tests shown a higher percentage of gluten, a better color, greater absorption and heavier weight per bushel of grain.

Appearance—Marquis Wheat is similar in appearance to Red Fife, but the heads, as a rule, are heavier and the straw is shorter, making it less likely to lodge. The kernel is flinty, a little darker in color than Red Fife, being dark red, and more plump than that variety. It is beardless, having smooth, yellow chaff.

EARLY BART—This variety has only been introduced this last two or three years into the Big Bend section, and results obtained have been very satisfactory. It is a white variety, very large grains—larger than the Bluestem—and a very handsome wheat in appearance. Its milling qualities are such that the millers pay the top price for it. It is a very heavy yielder, surpassing all of the old standard varieties, and some claim that it will outyield the famous Marcus wheat. It is bearded and much less liable to shatter than any other variety.

Oats

We handle the Bonanza, Swedish Select, Silver Mine, Lincoln, Senator and other standard varieties. These varieties have all proven to be well suited to the Inland Empire, and are the varieties mostly grown and recommended. Our quality will be as good as careful selection and re-cleaning can make them.

We desire to draw special attention to our Silver Mine and Senator Oats.

SILVER MINE—This oat has made a reputation for itself as a great yielder and very reliable. It is hardy and the kernels are a beautiful white.

SENATOR—The quality of this oat must be seen to be appreciated, as the grains are much larger in this variety than in any other that we know of, hence an immense yielder.

Barley

WHITE HULLESS—A grand barley for stock feeding. Grain plump, heavy, and when threshed is hullless like wheat. A heavy cropper. When grown and cut for hay it produces a magnificent fodder, which is very rich and almost equal to a grain feed. Much relished by horses and stock of all kinds. An excellent hog feed.

Its Valuable Properties

It's hullless; it's beardless; it's very early. It weighs over 60 pounds to the measured bushel.

It yields well on poor land.

It yields enormously on good land.

Crop failure.

BEARDLESS—Two strong features distinguish the Beardless Barley above all other barleys; first, its great yielding qualities; second, its freedom from the troublesome beard. It is on this account not only much more agreeable to handle in threshing than other barleys, but it is much safer and better to feed to live-stock. As a fattening agent for swine Beardless Barley is particularly valuable.

Rye

Rye is a valuable and very hardy crop, producing green fodder either in the early spring or late fall. It matures before other crops come in and can be sown on soil too poor for other cereals.

SPRING RYE—Spring Rye is an excellent catch crop where winter grain has been killed out, or for sowing where a full crop has not been planted. If desired it can be turned under and made to answer a good purpose in adding to the fertility of the soil.

WINTER RYE—The value of Winter Rye is becoming more apparent every year. It is much harder than wheat and can be grown on a greater variety of soils, even on soil that would not produce a fair crop of wheat. It will thrive even in dry seasons and on light sandy loam. It is grown not only for grain, but for fodder and soiling purposes. When sown in the autumn it starts up very early in the spring and is often plowed under, as it adds greatly to the fertility of the soil. Rye does not exhaust the soil as do other grains and can be cultivated longer on the same land than any other crop on the farm.

Owing to the present high prices on all kinds of grain, and the great uncertainty of prices in spring of 1918, we are unable now (December, 1917) to quote any prices that would be trustworthy or reliable, therefore we are refraining from making any quotations on our seed grain. Write us before you purchase, stating particular kind and amount wanted and we will quote you lowest price at that date. Will also forward sample if requested to so do. On all open orders we will send full value for money received.

Kill the Smut in Your Grain

If there is smut in your grain destroy it by using bluestone or formaldehyde. This trouble is becoming very prevalent, and must be destroyed if wheat is to keep up its high grade of milling qualities.

Fertilizers

Most soils in the Inland Empire are yet fairly new. Their native or virgin fertility is not yet exhausted. There are, however, many different types of soils, some of which do not naturally contain very large supplies of the different elements of plant food needed by crops. Such soils are likely soon to "run out" and need application of fertilizers carrying the particular elements in which they are deficient. These can best be restored to or built up in fertility by the use of fertilizers to stimulate increased growth until the soils can be properly brought back into good condition. Write for prices on all fertilizers, stating amount wanted.

SUPER-PHOSPHATE—This is what is known as Acid Phosphate, being Phosphate rock treated with acid to make the Phosphate Acid available. The Phosphoric Acid in this is more quickly available than it is in bone meal and for that reason is sometimes more useful. It contains 20 per cent Phosphoric Acid, and is generally used at the rate of 500 lbs. to 1,000 lbs. per acre.

NITRATE OF SODA—Contains 13 per cent Nitrate, in quickly available form. It is used for forcing crops like lettuce, celery, etc., as it makes a large growth of leaves and tops.

Apply the Nitrate of Soda by broadcasting it evenly over the entire surface of the vegetable field you are fertilizing, at the rate of 200 pounds per acre, before seeding, or planting, or transplanting.

KAINIT—It contains 12.4 actual Potash and contains Potash both in the forms of Sulphate and Muriate. It contains Salts of Magnesia and also common Salt. Kainit can be used upon the crops for which Muriate of Potash is recommended.

SULPHATE OF POTASH—Contains 50 per cent Available Potash. This is similar to Muriate of Potash but is free from chlorides, and can be used to advantage in some instances where the muriate can not be used. Use about one sack to the acre.

MURIATE OF POTASH—Contains a larger percentage of Potash than other commercial forms, and is, therefore, cheaper where it can be safely used, but owing to the Chloride it

contains, is not best for some crops unless applied a few months previous to planting, which allows the Chloride to leach out while all of the Potash is retained until taken up by the plants.

LAND PLASTER OR GYPSUM—Made from pure Gypsum, free from clay or other foreign matter. This is especially valuable for clover and grass crops. 100 lbs., \$1.00; 500 lbs., \$4.50; ½ ton, \$8.00; ton, \$15.00.

ANIMAL FERTILIZERS—Most of them contain both Nitrogen and Phosphoric Acid, but do not contain Potash, so that to make them complete it is necessary to add the correct proportion of chemical fertilizers. All the different ingredients are found in our Clover Leaf Fertilizer.

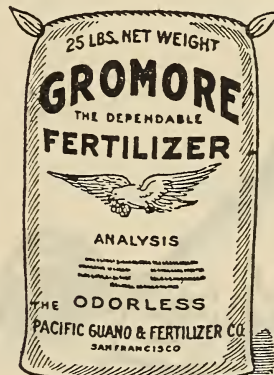
BONE MEAL—This contains 3 per cent Nitrogen and 22 per cent Phosphoric Acid. It is slower in action, but will not dissolve and waste in the soil, as the plant food contained in the Bone Meal is released only as fast as the roots of the plants take it up. 100 lbs., \$2.25; 500 lbs., \$11.00; ½ ton, \$21.00; ton, \$40.00.

TANKAGE—This is a slaughter-house product and has very little odor. The analysis shows 5 to 7 per cent Nitrogen and 12 to 15 per cent Phosphoric Acid. 100 lbs., \$1.75; 500 lbs., \$8.50; ½ ton, \$16.00; ton, \$30.00.

BLOOD MEAL—A quick-acting fertilizer analyzing very high in effective Nitrogen. This also carries some Phosphorus; is a strong fertilizer, a little going a long way. 100 lbs., \$2.75; 500 lbs., \$13.75; ½ ton, \$27.00; ton, \$53.00.

SHEEP MANURE—This is the best and strongest in fertilizing and enriching elements, as it contains Nitrogen, Phosphoric Acid, Ammonia and Potash in liberal proportions. Produces immediate and lasting effect. Promotes steady and rapid growth.

FOR LAWNS—Pulverized Sheep Manure is the best possible fertilizer for the lawn. It should be applied by sprinkling lightly over the grass, much as one would sow grass seed. It requires no raking in. The color is not conspicuous and there is no objectionable odor. 100 lbs., \$1.75; 500 lbs., \$8.50; ½ ton, \$16.00; ton, \$30.00.



Our
principle
is:
Quality
first and
all
the time.

GROMORE

Odorless, Clean, Dependable.

Analysis:

Nitrogen	6 per cent.
Phosphoric acid	9 to 10 per cent.
Potash	5 per cent.

A TON OF MANURE

A ton of the best cared for stable manure contains:

Nitrogen	12 lbs.
Phosphoric Acid	10 lbs.
Potash	5 lbs.

Also foul weed seeds, odor, bulkiness, is expensive and disagreeable to handle, etc.

FERTILIZERS—Continued

Years of experimenting, demonstrating and getting at FACTS have shown that the public wants FULL and EXPLICIT information and NOT generalities.

The grower wants a Fertilizer that does all that it is claimed it will do. He wants a Fertilizer that is without objectionable ODOR; one that is not BULKY and does not require expensive handling.

Just remember there are twelve elements that go to make our earth and all thereon, whether animate or inanimate; it is simply a matter of proportion what that matter may be, animal, plant or otherwise.

Usually all elements are found in sufficient quantities in the earth, with exception of the three most essential properties, viz: Nitrogen, Phosphoric Acid and Potash.

Gromore contains all of the 12 elements and is proportioned so as to come in combination with one another and the elements in the earth, unlocking and releasing the dormant elements

from the earth so that the plant finds its food readily available, is one of the many reasons why Gromore gives such splendid results. 25-lb. bag, \$2.50; 2-lb. package, 40c; add postage. Booklet giving full directions furnished upon request.

As it is impossible for us to quote with any degree of certainty on Nitrate of Soda, Phosphates and Potash, we are not making any quotations, therefore ask that you write for prices, stating amount wanted.

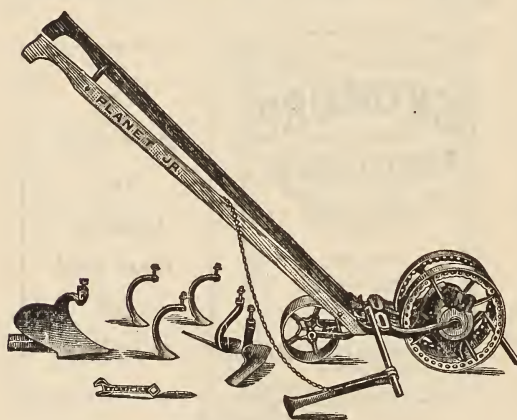
This also applies to all the fertilizers we have quoted, as the scarcity of the imported chemical fertilizers will affect the price of all. Sold only at price prevailing at time of shipment.

We have the following books treating on the different chemical fertilizers, mode and manner of using, crops, etc., which will be sent free of charge. Make your selection and send 5 cents to cover postage: Fall Fertilizers, Farmers' Guide, Farmers' Note Book, Plant Food, Potash Pays, Potash in Agriculture, Principles of Profitable Farming, Strawberry Culture, Sugar Beet, Truck Farming.

Farm and Garden Tools

Space will not permit our showing and describing all of the "Planet Jr." Tools, but we will send a full illustrated catalogue free for the asking to any one desiring it, and we can supply promptly anything ordered. "Planet Jr." goods are standard machines, the best on the market. In sending your orders to us you can rely on getting bottom prices.

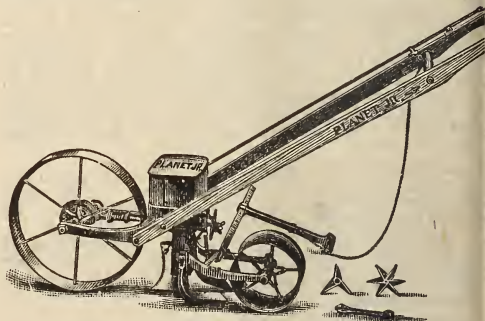
No. 1 Planet Jr. Combined Drill and Wheel Hoe. Price, complete.....\$15.00



This tool is known and used the world over. The hopper holds three pints, and sows in an even, regular stream, whether there is much or little seed in it. The machine is extremely simple, has no agitators, belts or gearing, and will not injure the seed. From a drill it is changed to its other uses by removing two bolts, when hoes, cultivator teeth or plows can be quickly attached. It is a practical everyday time and labor saver, a grand remedy for the backache, and the best low-priced combined machine on the market.

No. 4 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow.

Price, Complete\$17.75
Seeder Only\$14.25

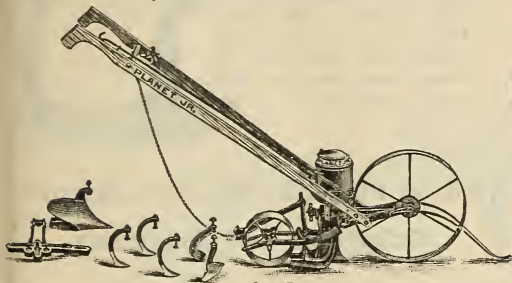


This is the most popular combined tool made. It combines in a single implement a first-class, hill-dropping seeder, a single wheel hoe or weed-er, a cultivator and a plow. The hopper holds two quarts of seed, which can be sown in continuous rows, or dropped in hills, at 4, 6, 8, 12 or 24 inches apart.

The drill is detached and the tool frame substituted by removing but one bolt. It then becomes a single wheel hoe. It is useful almost every day of the season, at every stage of the garden work. With this one implement the small farmer can do practically all the work in his small crops.

No. 6 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow.

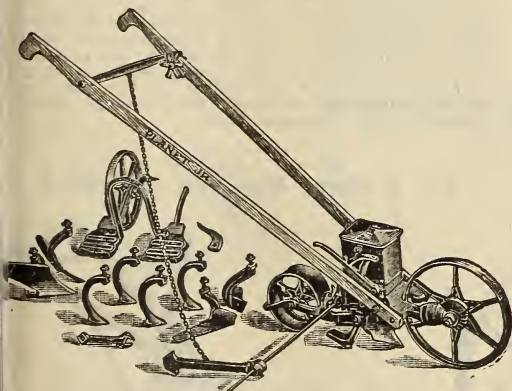
Price Complete\$23.75
 Seeder Only\$20.00



The steel carrying wheel is 16½ inches high, with forged steel spokes, making an easy running tool. Handles adjustable. The feed and cut-off are very accurate. The opening plow is of a new shape, leaving the seed in a narrower row than any plow heretofore made. The roller is large and wide, leaving the seed in excellent condition for germination. This drill sows in drills, drops in hills 4, 6, 8, 12 or 24 inches apart, covers, rolls down and marks the next row, all in one passage. As a wheel hoe the frame is similar to our No. 17 Single Wheel Hoe and equipped with the same tools.

No. 25 Planet Jr. Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow

Price, \$20.75.



This combined machine is intended for gardeners who have a large enough acreage in crops for a double wheel hoe to be used to good advantage, and prefer not to buy separate machines.

As a drill it is almost identical with the Planet Jr. No. 4 Drill, and is thoroughly substantial and accurate in sowing all kinds of garden seeds in hills or drills.

As a wheel hoe it is identical with the Planet Jr., No. 12 Double Wheel Hoe, the very best machine on the market. The change from drill to wheel hoe takes but a moment and the whole combination is one we can heartily recommend and guarantee satisfactory.

No. 21 Combined Hill and Drill Seeder and Fertilizer

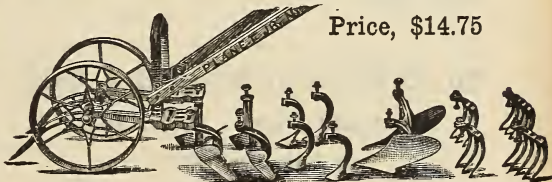
Price, \$22.50



No. 21 has been much improved and meets the demand for a drill to sow seed and fertilizers at the same time. This tool may be used to sow seed only, in either hills or drills, as desired; or to sow fertilizer only; or to sow both together. It sows all garden seeds in hills 4, 6, 8, 12 or 24 inches apart, or in drills, and also fertilizer, placing it above or below the seed as desired. The quantity is regulated by the patent feed rod and index at the top of the handle. The seed hopper holds 2 quarts; the fertilizer hopper 4 quarts.

No. 11 Doble Wheel Hoe.

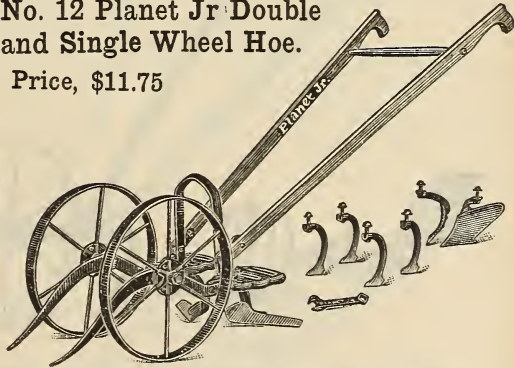
Price, \$14.75



This is the greatest cultivating tool in the world for the onion and sugar beet grower, and also for every grower of garden crops from drilled seed. They can do more work and do it better and easier than can possibly be done in any other way. One pair 6-inch hoes, one pair 4-inch hoes, two pairs hollow steel cultivator teeth, one pair plows, two 3-tooth rakes, two 5-tooth rakes, and two leaf lifters.

No. 12 Planet Jr Double and Single Wheel Hoe.

Price, \$11.75

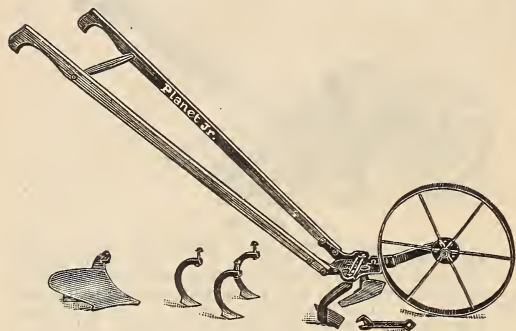


This No. 12 runs either astride or between the rows; kills all the weeds and leaves the earth in fine shape. Then, too, it's easy to work.

The No. 12 has a pair of 6-inch hoes, a pair of plows for opening or covering, and a set of four all-steel cultivator teeth. The tools shown are what gardeners use most and others can be added as wanted.

No. 17 Planet Jr. Single Wheel Hoe**Price, \$8.25.**

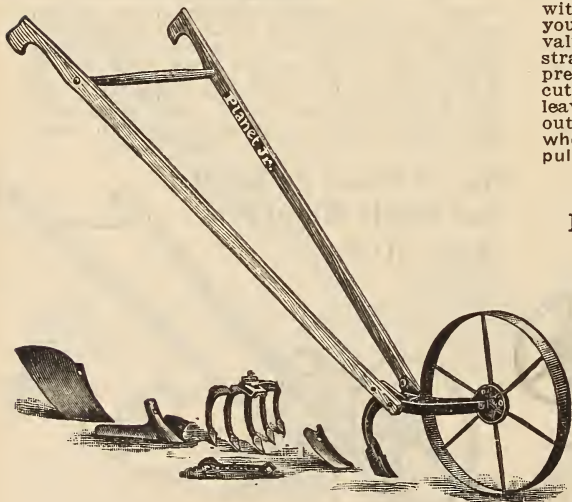
15 Inch Steel Wheel, Steel Frames.



No. 17 is suited to all kinds of garden cultivation and all garden crops. You can do more and better hoeing with it in one day than you can do in three days with a hand hoe. The No. 17 has a pair of 6-inch hoes, a plow and a set of cultivator teeth, an outfit sufficient for most garden work.

No. 19 Planet Jr Wheel Hoe, Cultivator and Plow. Price, \$6.35.

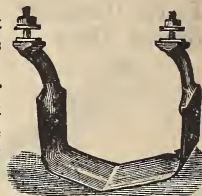
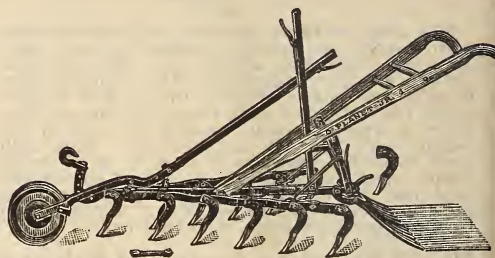
15 Inch Steel Wheel.



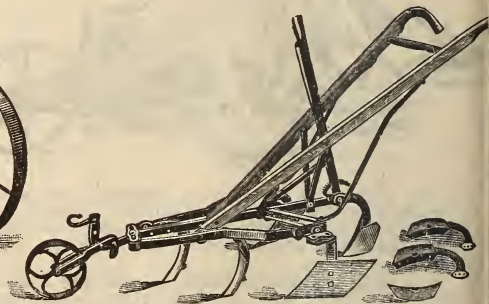
No. 19—This attractive implement is especially designed for the farmer's garden work, though it offers to every one with either field or garden a cheap and effective tool for wheel-hoe operations. The great variety and fine shape and quality of the tools makes the implement light running and effective. It is strong, well made, and quickly adjusted. The height of the handles can be changed to suit man or woman, boy or girl.

Onion Set Harvester**Price, \$1.25.****Weight 1½lbs.**

A useful attachment for our combined drills and all our wheel hoes. Eight-inch size for onions and onion sets. It leaves the crop in the best condition for easy handling.

**No. 90 Planet Jr. 12-Tooth Harrow, Cultivator and Pulverizer**

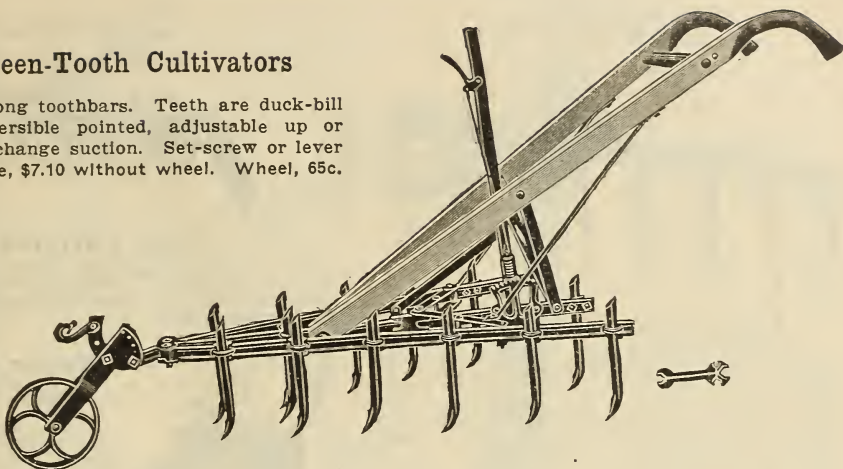
With the 12-tooth harrow here shown you go as deep or shallow as you like, come up close to row without injuring plants, cut out all the weeds, stir the soil and mellow and fine it as with a garden rake. You widen and narrow as you please between 12 and 32 inches. An invaluable tool in the market garden, truck and strawberry patches. Has new steel wheel which prevents clogging. Its 12 chisel-shaped teeth cut out all weeds, stir and mellow the soil and leave the ground in the finest condition without throwing dirt on plants. Price, without wheel, pulverizer or sweep, \$12.50; wheel, \$3.50; pulverizer, \$3.00; sweep, \$2.00.

No. 2 Horse Hoe and Cultivator

For garden, truck patch, orchard or field work. This tool is finely built throughout. Frames are high carbon steel, and are made extra long to avoid clogging in narrow rows. Standards high, reducing draft, and adjustable to change pitch of shovels. Price, without hoes or wheel, \$7.65; hoes, 70c; wheel, 65c.

Fourteen-Tooth Cultivators

Special strong toothbars. Teeth are duck-bill shape — reversible pointed, adjustable up or down, or to change suction. Set-screw or lever spread. Price, \$7.10 without wheel. Wheel, 65c.



"Standard" Garden Plow

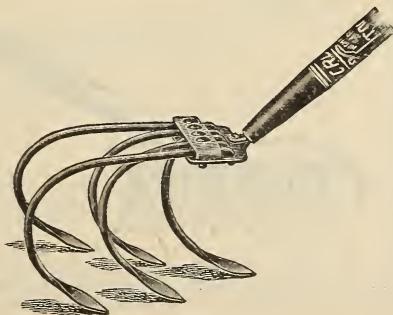
The adjustment is the handiest and most perfect ever put on a tool of this kind and is adjusted up and down by loosening a thumb nut at the top of the shank, as shown in cut, and may be done without removing the plow from the ground. Wheel 24 inches in diameter, held by double pattern frame of very stiff steel. The handles are adjusted by the same thumb nut without interfering with the plow adjustment. The attachments furnished with this tool are of the best quality and shape ever offered. The new five-tooth rake cultivator is fine for all small plants and stirs the ground thoroughly, having wide shovel points. Price, \$4.75.

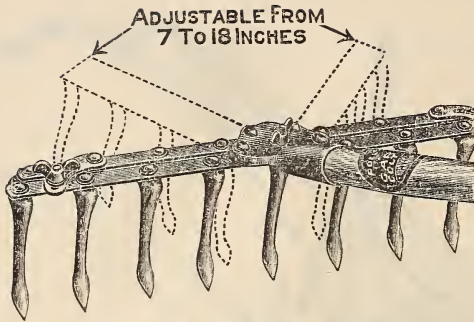


*We appreciate the
orders you
have already
favored us with,
and hope for
their continuance.*

Cronk's Cultivator Hoes

Two prongs are changeable for rows of any width. Loosening nuts, releases the prong. Works between rows or center prong can be removed and rows straddled. A perfect weeder and pulverizer, giving level cultivation. Removing center prong and reversing other four makes Potato Digger. Head made entirely of steel. Light, well made, serviceable. Blue finish, 4 1-3 foot handle. Price, \$1.25.





Adjustable Garden Cultivator

A patented groove slide, secured by handy thumb screws, allows the working width of the Cultivator to be varied from 7 to 18 inches. When the plants are young, the middle tooth can be removed by the simple loosening of a thumb screw, allowing the plants to be straddled and two rows worked at once.

When spread out to its full width it can be used as an ordinary rake. The teeth are so arranged that no two teeth at any width adjustment are in line with each other.

It will pulverize and weed your garden thoroughly and you will enjoy working with it. Since it serves as both a rake and a Cultivator it can be put to many uses about the yard or garden.

Every part is of the best material, the teeth are drop-forged steel, set in an indestructible plate. The handle is perfectly smooth, of straight-grained, tough white-ash.

Weight of complete Cultivator is $3\frac{1}{2}$ lbs. Length of handle is $4\frac{1}{2}$ feet. Price, \$1.50.

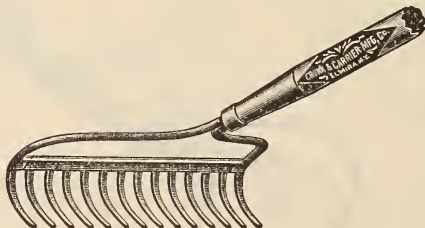
Garden Trowel



Good steel trowel. Price, 10c, 25c, 50c; postpaid, 15c, 30c, 55c.



Solid socket, polished blades, bronze finish; $4\frac{1}{2}$ ft. handles. Each, 75c.

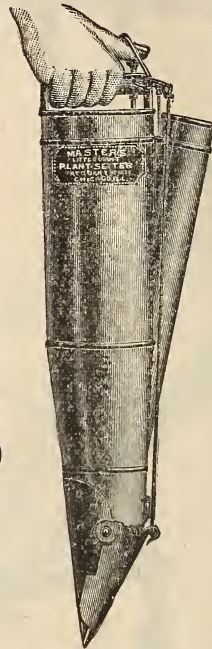


The flanged head is electrically welded to the bows. Curved teeth, capped ferrule, bronze finish; XX handles, 14 and 16 teeth. Each, 90c.



Lang's Weeder

It is very conveniently used, and fits the hand so comfortably that the fingers are entirely free for use wherever necessary. Price, 25c; postpaid, 30c.



Masters' Rapid Plant Setter

The only successful hand transplant on the market for transplanting Cabbage, Tomatoes, Sweet Potatoes, Egg Plant, Cauliflower, Peppers, Strawberries, and all similar plants.

Each plant is SET, WATERED and COVERED in one operation without any stooping and no lame backs. A man simply walks along in an upright, comfortable position and will set from 8,000 to 15,000 plants per day and never have to bend his back. This is three times as fast as hand-setting and very much easier. It does perfect work. The roots of each plant are put into the ground in a natural position and firmly set by the absorption of the water. Weight, 7 lbs. Price, \$5.00 each; add postage.

Corn Planters

ACME ROTARY AUTOMATIC — Pressed steel hopper. Hopper cup conveyor, depth gauge, dump, foot and cut-off box. Cast frame (or basket). Disc or seed plates are adjustable by means of a thumb nut to suit various sizes of kernels. Used in one hand like a walking stick. Disc is set for correct number of kernels by loosening thumb nut, moving star until pockets are of right size, then tightening thumb nut again. Plunge planter into the ground, work forward to trip seed, and withdraw. Double coil spring automatically rotates disc and closes jaws, thus filling same for next hill. Weight, 6 lbs. Price \$2.25; add postage.





SEGMENT—Automatic slide type. Segmental pressed steel slide, adjustable for number of kernels, running in segmental steel track. Chinese bristle brush cut-off. Double coil steel spring, adjustable depth gauge, fixed dump lever, galvanized hopper with hinged cover, galvanized seed spout, hardwood sides, handsomely painted, pressed steel jaws, smooth handle, two coats of varnish. Can be used also for planting beans. Pumpkin seeds may also be planted by operator dropping seed into hole in spout. A popular planter that has been well introduced and has given universally good satisfaction. There is not one piece of casting in this planter. There is no wear, for the segment slides in a steel guide. Weight, 5 lbs. Price, \$1.75; add postage.

POTATO PLANTERS

ACME SELF-LOCKING TUBULAR. With walking. The jaws are formed from bright steel dipped in a special preparation to prevent rust and have a simple and novel arrangement to hold them tightly locked or closed until thrust into the ground, when they may be freely opened. This lock is secured by the front jaw slipping down $\frac{1}{2}$ of an inch, which causes a pair of studs on its upper corners to slip over corresponding shoulders in the rear jaw. When thrust into the soil to deposit the seed, the front jaw is pushed up, releasing the lock. Galvanized iron taper conveying tube. Weight 6 lbs. Price, \$1.75; add postage.



Acme

PINGREE OR ACME—Is practically the same as the Acme Tubular with the tube down the handle. You lift the planter up and drop the potato in the lower part. It is light and a very satisfactory planter. Weight, 5 lbs. Price, \$1.25; add postage.

ACME WIRE TUBULAR—Bright steel jaws dipped in a preparation to prevent rust. Is of the lock-jaw type the same as the Acme Self-Locking and consequently there are no springs required for its operation—a very commendable feature, and one highly appreciated by the trade. Strong hardwood handle, set into malleable iron socket securely riveted to back jaw. Foot plates provided on socket. Adjustable dump or depth gauge. Wire mesh conveying tube by which each seed can be seen when passing through the tube, thus assuring the operator that each seed is planted. No rivet heads on inside of jaws to bruise eyes on seed. Weight, 6 lbs. Price, \$1.75; add postage.

Corn Knives

A very convenient and excellent tool. Mailing wgt., 2 lbs. Price, 50c; add postage.

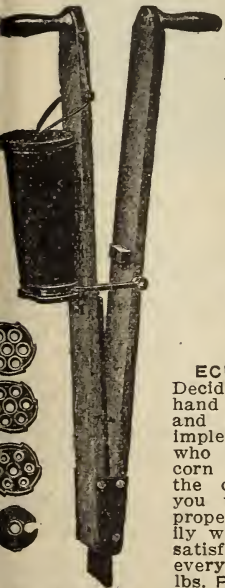


The old-fashioned crooked corn knife, with a wooden handle. Weight, 2 pounds. Price, 50c; add postage.

ECLIPSE ROTARY—Decidedly the best two-hand corn planter made and a very desirable implement for those who have a quantity of corn to plant. It puts the corn exactly where you want it, and at a proper depth. It is easily worked and a most satisfactory tool in every way. Weight, 9 lbs. Price, \$2.25; add postage.

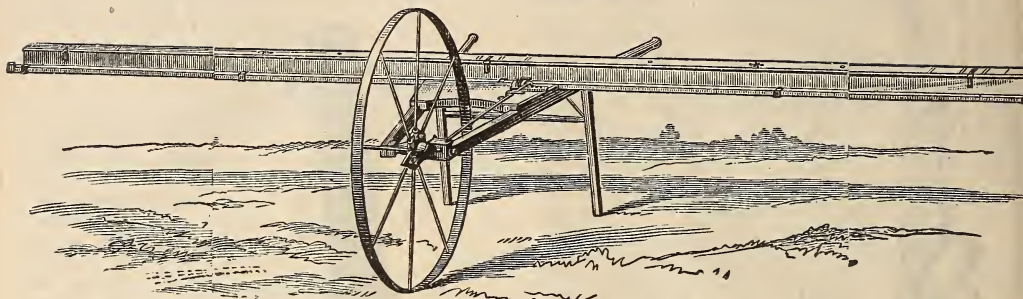


No. 6 SPECIAL STEEL—Length of blade, 15 inches. Width at end, 3 inches. Length over all, 21 $\frac{1}{2}$ inches. Number of rivets, 3. Weight, 2 lbs. Price, 60c; add postage.



Eclipse

GRASS SEEDERS



NATIONAL WHEELBARROW — They run easily, and sow evenly in windy weather. The quantity of seed sown is accurately governed by the wheel, which moves correspondingly slow or fast as the machine runs over the ground. This new seeder is constructed on up-to-date principles. It has a strong steel wheel, 32 inches in diameter, with an inch and a quarter by one-quarter inch steel tire, is operated by a device that engages the wheel close to the hub, having a lever and working correspondingly easy. It is instantly thrown out of gear, and the amount of seed sown is quickly governed by changing the pin in the index plate as thereon indicated. This seeder does not injure or bunch the seed, but evenly distributes it the full length of the hopper, 14-ft. spread. Price, \$9.00.



LITTLE WONDER—This Sower of the Single-Board-Bottom type, is a trifle smaller than the Improved Cyclone, but it has the same shape, and is carried and operated the same. Has large distributing wheel and automatic feed shutoff. It is a well constructed Sower that will handle all varieties of farm seed that can be sown broadcast. Weight, 4 lbs. Price, \$1.50; add postage.

**IMPROVED CYCLONE**

Has a Slope Feed Board—This feature is found in no other Sower as the Improved "Cyclone" is the only Hand Seed Sower that is framed together with a slope feed board. This is a marked improvement over the single-board type, as it insures a filled hopper always, until seed is exhausted.

CHEMICAL SQUIRREL TUBE

Automatic Feed Shut-off — starts or stops flow of seed instantly.

The Improved "Cyclone" is guaranteed to sow perfectly all seed that can be sown broadcast, such as clover, timothy, millet, flax, wheat, oats, alfalfa, etc., etc. Weight, 5 lbs. Price, \$2.00; add postage.

The greatest exterminator of all animals that burrow in the ground.

The chemical squirrel tube is endorsed by the Pullman College and Moscow University.

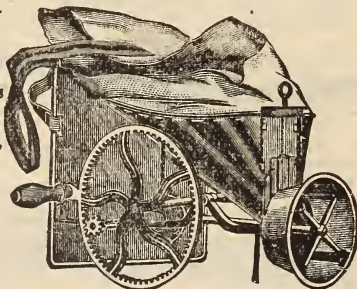
The main secret of this Smoker is the inner tube, which allows the machine to remain comparatively cool, and the force draft from the high-speed fan direct into the mouth of the hole gives a constant pressure of a continual flow of poisonous fumes. Take a blind hole or one that has only one opening and the result is a continuous flow that will cause a circulation, whereas a pump would cause a stagnation of the fumes and air. Its work is rapid and its effects are sure. Experiments have proven that squirrels and gophers expire almost instantly when they come in contact with the deadly smoke or gas.

DIRECTIONS FOR USE—The chemical used is carbon bisulphide. Fill tube two-thirds full of old sacks or any kind of waste, saturate with chemical, and blow fumes in the hole.

DO NOT LIGHT, AS IT WILL EXPLODE—For smoking, old sacks or dry manure has no

CAHOON —The standard broadcast seeder and one of the best made. Sows all kinds of grain, Clover, Timothy, and heavy seeds. Very simple in its operation and sows 4 to 6 acres an hour at a usual walking gait.

Distributes seeds uniformly in one-fifth the time required by hand. Weight, 8 lbs. Price, \$4.25; add postage.



Cahoon Broadcast Seeder

qual. With about one pint of sulphur to each
oad this can be used with very little cost to
he farmer.

Fifty cents' worth of sulphur will clean 100
cres of badly infested land.

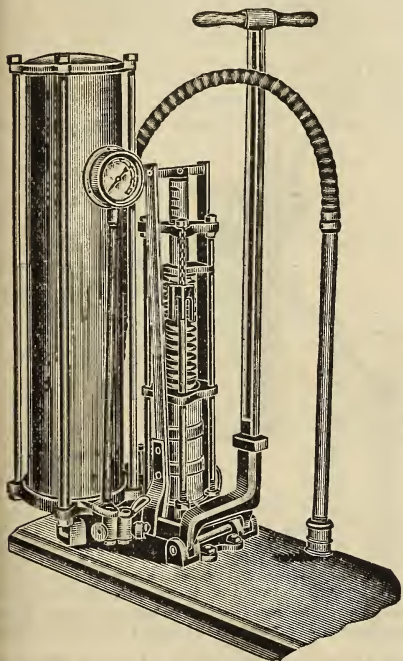
Fill in all holes that smoke escapes from.

If directions are followed success is sure.

Price, \$10.00.

Pumps

THE MAGIC SPRAY PUMP



Magic pumps represent a principle in con-
struction, found in no other spray pumps.

This construction means maintaining the high
ressure that is absolutely essential with only
wo-thirds of the labor necessary with any other
ump.

In addition to the overwhelming superiority
he Magic and other Bean Spray Pumps are the
nly ones which—

Have non-corrosive porcelain cylinders, 3-
ch;

Have no stuffing box or outside packing.

Have 5 1-16 inch bell metal ball valves with
eversible and removable seats;

No threads inside the valve;

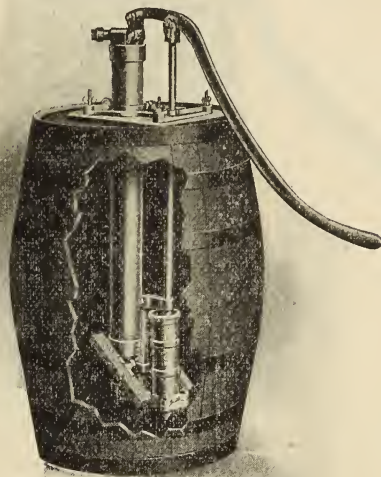
Have a powerful spring, which is so used as
o save one-third the labor;

Weight, 200 pounds.

PUMP ONLY—With gauge, double cut-off,
uction hose and strainer, \$66.00. For price of
ods, Cut-Off Nozzles and Hose see Page 65.

BEAN LITTLE GIANT NO. 70

Spray and Whitewash Pump



"Little Giant" is recognized as the best and
most powerful barrel sprayer on the market,
giving universal satisfaction for small orchards
of a few acres.

The pump has a large steel air chamber, mak-
ing it easy for the operator to keep up a high
pressure, and continue spraying for some time
after pump has stopped.

It has no stuffing boxes, glands or outside
packings, thereby insuring easy running.

Rotary agitator that is positive, insuring thor-
ough agitation for such heavy solutions as ar-
senate of lead, Bordeaux, whitewash and cold
water paint.

No. 70—Pump only, with "Rapid Mixer," top
plate, anchor, hose nipple and thumb bolts ready
to fasten to barrel. Price, \$26.00.

For price of Rods, Cut-Offs, Nozzle and Hose,
see Page 65.

Empty Barrel, \$2.00 extra.

BEAN "PIPPIN" NO. 50

Our Bean Pippin, No. 50, is especially adapted
for use on side hills and very rough ground, be-
cause the air chamber is entirely contained
within the barrel, so it is almost impossible to
tip over.

It also meets the demand for a low-priced,
high-class sprayer for small orchards, vineyards
or whitewashing jobs.

It has an anchor in the bottom of the barrel
on which the point of the cylinder rests, which
holds it rigidly in position. It is made to fasten
in a barrel without a head, so is extremely easy
to mount.

No. 50—Pump only, with agitator complete,
anchor, hose nipple and bolts ready to fasten
to barrel. Price, \$17.50.

Empty barrel, \$2.00 extra.

For price of Rods, Cut-Offs, Nozzle and Hose
see Page 65.

PILOT SPRAY ROD—The Pilot Spray Rod is
a highly improved syringing gun, suitable for
use either with power sprayers or the larger
size hand outfits. Two or three of these can
be used, with a power sprayer, and give ex-



Plippin No. 50.

cellent results. The operation of the Pilot Rod is identical to that of the Bean Giant and Bean Pony Spray Guns, excepting that it has a smaller capacity and a different system of controlling the nozzle, and is driven much further than with the ordinary bamboo extension rods and nozzle. The Pilot Spray Rod throws a heavy penetrating mist or a long-distance spray. This is an excellent spray gun for the small or medium size orchard. Price, \$7.00.

BEAN PONY SPRAY GUN—The Bean Pony Spray Gun takes the entire capacity of any pump operated by $1\frac{1}{2}$ or 2 horsepower engine, and two of these guns may be used on outfits of large capacity, such as the Bean Giant Triplex.

The Bean Giant Spray Guns are the greatest labor and time savers that have ever been offered to the fruit grower. Every orchardist owes it to himself, to his orchard, and to his pocketbook to investigate these Bean Spray Guns.

Capacity, 4 gallons per minute. Price, \$10.00.

BEAN GIANT SPRAY GUN.

The Bean Giant Spray Gun eliminates entirely the use of spray rods. One man can spray as rapidly and more efficiently with this gun than two or three men with ordinary spray rods and nozzels. Half-inch hose is too small and reduces the pressure considerably.

From Full Fog Through Long Distance Spray and Back to Cut-Off.—The Bean Giant Spray Guns throws a full penetrating spray. Its operation is very simple. One-quarter right turn of the handle produces full fog spray, and complete half right turn produces long-distance spray. Cut-off is accomplished by stopping the outlet hole, without ground plugs or expensive replacements and is instantly operated by complete half turn to the left. The operator can stand in one place and spray from bottom to the top of trees or vice versa, simply by turning the handle of the gun, thus regulating the force of the spray. The Bean Giant Spray Gun throws a spray to the tops of the tallest fruit trees. It is only three feet long and is easily carried anywhere. Simple—durable—efficient—easy to clean.

Bean Giant Gun—Capacity, 8 gallons per minute. Price, \$15.00.

UTILITY SPRAY OUTFITS Nos. 40 and 40A

This Outfit is Light, Compact, Easy to Operate

Very useful for painting, whitewashing, and spraying warehouses, factories, barns, trees and greenhouses.

TANK is larger than most similar outfits made of heavy galvanized iron, re-inforced at top and bottom with heavy band iron rings. Capacity, 18 gallons.

PUMP—The cylinder is made of heavy brass tubing and has brass plungers packed with specially treated cotton wick to resist action of chemicals; can be tightened or expanded without removing from cylinder. Valves and all parts that come in contact with liquids are brass. Iron handle of good length makes pumping easy; 175 pounds pressure is easily maintained. Mechanical agitator keeps liquids thoroughly mixed. A fine strainer at suction end prevents sediment getting into working parts of pump.

FRAME substantially built of steel, well braced and balanced.

Pump only, price, \$18.00.

For price of Hose, Rods, Nozzles, See Page



40A

No. 40A—Same in construction as No. 40, but equipped with an air pressure tank mounted on pump casting. This makes a one-man outfit. By obtaining 250 pounds pressure considerable spraying can be done without pumping.

Pump only, including air pressure tank, \$25.00. See Page 65 for prices of Hose, Rods, Nozzles.

The Success Bucket Spray Pump

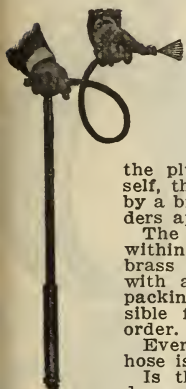
All Brass Working Parts, with Indestructible Bronze Valves, Malleable

Iron Foot-Rest.

This outfit is a most excellent one for ordinary use in gardens, vineyards and orchards; for washing windows and buggies and for the application of white-wash. The pump has a large air chamber and is double acting, throwing a continuous stream either solid or in fine spray. It is provided with Bordeaux nozzle and four feet of discharge hose. Weight, 8 lbs. Price, \$6.00; add postage.



A New Spray and Force Pump



We do away entirely with the objectionable foot-rest, clamps, leather suction, packing, etc., etc.

This pump requires no fastening of any kind, holds itself down and works anywhere and everywhere. All the operator need do is to press the plunger down. It rises of itself, the upward stroke being made by a brass spring forcing the cylinders apart.

The all-brass suction working within a brass cylinder with all brass valves, does away entirely with all leather, rubber, or other packing. It is practically impossible for any part to get out of order.

Everything except handle and hose is solid brass.

Is the easiest working and will do more different kinds of work than any pump ever made. Will pump from a pail, barrel, tank, spring or creek. Without fastenings of any kind it stands firmly wherever placed.

Will throw two solid continuous streams, one flat spray and one fine round spray. Has automatic mixer to keep solution stirred, please. Weight, 5 lbs. Price, \$4.50; add postage.

is very essential in obtaining a fine spray for high trees, poultry houses and other outbuildings, as well as vegetation of all kinds.

The Utility is especially adapted for white-wash, cold-water paint, Bordeaux mixtures and Paris Green.

THE TANK should be filled to the line indicated on the outside. It being tested to 95 lbs. pressure to the square inch at the factory insures a safe working pressure. It will give a real spray if the operator will only push on the pump handle. The tank is fitted with a standard garden hose connection, making it useful for other kinds of work as well. Tank requires no special wrench for opening when refilling is necessary.

THE PUMP can be easily removed by a one-quarter twist of the opening cap. The cylinder is made entirely of brass tubing with a ball check in the bottom which will not stick. The pump and filling cap are held in a tight position by a gasket locked tight by a four point expansion device. There being no twisting action on the gasket, prolongs its life indefinitely.

THE NOZZLE is made of all brass, and can be operated at any distance by merely adding a longer piece of one-quarter inch gas pipe and a piece of wire. The valve stem is made of a special hard brass, seating on a soft brass ground seat. This makes the best kind of shut-off known. The valve contains a strainer which positively prevents clogging. The valve stem has a packing box which can be tightened in case of necessity. Weight, 11 lbs. Price, \$6.50; add postage.

Utility Compressed Air Sprayer



**Inland Business
Compressed Air
Sprayer**

The Inland Business Sprayer is one of the most popular with the trade because it meets the demand of the general public for gardens and small fruits. It is a compressed air sprayer giving a fine, continuous spray; so fitted with a powerful pump, that by an occasional stroke of the plunger the air pressure is easily retained.

The tank is made of heavy galvanized steel, fitted with an air pump of heavy tin plate, and all spray tubes and nozzles of solid brass.

It meets the demand for a compressed air sprayer at a low price.

Pump cylinder $1\frac{1}{2}$ inches long by $1\frac{1}{4}$ inches in diameter.

Plunger rod of $\frac{1}{4}$ inch bright steel; our special type plunger; bumper washer securely soldered.

Plunger of best leather obtainable properly cupped. Capacity, one gallon. Weight, 3 lbs. Price, \$2.75; add postage.

The only sprayer on the market that can be operated as desired without getting out of one's natural position.

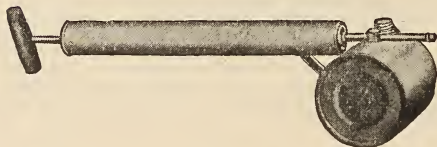
The Utility is designed to meet the requirements of an extra high pressure sprayer, which

Inland Powder Sprayer



In some sections potato growers, stock and poultry raisers prefer to use Paris Green and disinfectants in powder form, mixed with dry plaster. To meet such a demand the "Blow" Sprayer is recommended. This will be found to be one of the best powder sprayers on the market and will give entire satisfaction. Weight 2 lbs. Price, \$1.00; add postage.

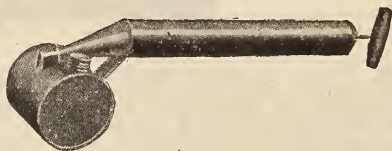
Inland Continuous Sprayer



The Inland Continuous Sprayer is so constructed that it not only sprays on the downward stroke of the plunger but also when it draws back, thus causing a continuous mist-like spray.

The air chamber measures $1\frac{1}{2}$ inches in diameter by 14 inches long. Has a $\frac{1}{4}$ -inch steel plunger rod; special type plunger. The sprayer is fitted with a 3-16 inch brass ball check valve. The solution tank is made from heavy IX tin, $\frac{3}{4}$ -inch zinc filler cap. Capacity one quart. Extra tip for spraying upwards, with each machine. Weight, 2 lbs. Price, \$1.00; add postage.

Inland Special Sprayer



Inland Special Sprayer is a Single Tube Tin Sprayer. The pump cylinder measures $1\frac{1}{4}$ inches in length by $1\frac{1}{4}$ inches in diameter.

Sprayer is fitted with a $\frac{1}{4}$ -inch steel plunger rod; special type plunger. The special arrangement of the spraying tube is such that it thoroughly breaks up or atomizes all oils and solutions into a fine mist-like spray which penetrates all cracks and crevices. Weight, 2 lbs. Price, 60c; add postage.

Insect Powder Blower

DEFENDER—Price, 15c; postpaid, 20c.

PUMP ATTACHMENTS

Clamps

Two of these clamps can be used on our long shank couplings and mender.

Price, postpaid, 5c; dozen, postpaid, 50c.



Cut-Offs

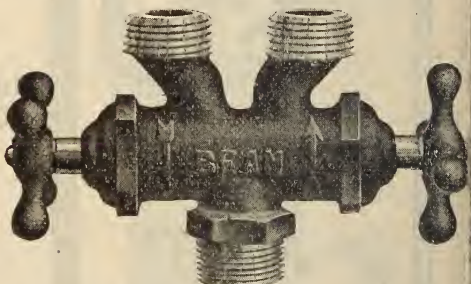
SPRAY ROD CUT-OFF—This $\frac{1}{4}$ -inch shut-off is for use on spray rods in place of globe valves. Shuts liquid off instantly, saving time and material. Can be put on any rod.

Price, \$1.00; postpaid, \$1.10.



BALL CUT-OFF—The perfect $\frac{1}{4}$ -inch rod cut-off. Far better than a globe valve for it opens full with less than one turn of the handle. Better than any lever cut-off because it will not leak since the ball revolves instead of wearing. Fits any spray rod. Price, \$1.40; postpaid, \$1.45.

Bean Double Ball Cut-Off

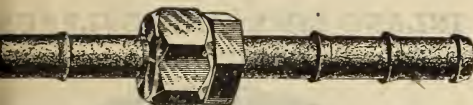


BEAN DOUBLE BALL CUT-OFF—It is much simpler and less expensive than two single cut off valves, and is fitted for $\frac{3}{4}$ -inch hose couplings on the discharge ends, and $\frac{3}{4}$ -inch pipe thread on the inlet. Either line of hose may be shut off without affecting the other, or both may be turned on or off. No spray pump should be used without this cut-off. Price, \$3.85 Postpaid, \$3.90.



HOSE CONNECTION—To connect $\frac{1}{4}$ -inch hose to spray rod. Price, each, 30c; postpaid 35c.

Spray Hose Menders. Price, 25c; postpaid 30c.



HOSE COUPLING—With hexagon nuts and double length shank, so will not putt or blow out.

Price, per pair, 65c; postpaid, 75c.
Female half only, 35c; postpaid, 40c.
Male half only, 35c; postpaid, 40c.

Hose Reducers



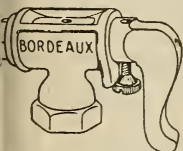
Price, one-piece reducer, 30c; postpaid, 40c.

HOSE REDUCERS—These are for connecting a male hose coupling on end of spray hose to the spray rod. The two-piece connection has a swivel joint and is easily attached. When the one-piece connection is used the entire rod must be turned in screwing on.

NOZZLES

BEAN WHITEWASH—The nozzle throws a fine spray or a solid stream. It is particularly commended for whitewashing and for washing eggies. To clean when clogged, turn the thumb screw straight out for an instant.

Price, \$1.40; postpaid, \$1.45.



BORDEAUX—This nozzle is a new pattern which eliminates the common objections to this type. The handle is built close down to the body and is shaped so as to avoid

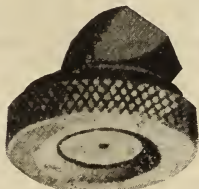
cutting in the branches. The corners of the nozzle are cut away, leaving plain straight faces which form a clean-cut spray without ragged edges. Price, \$1.40; postpaid, \$1.45.

VERMOREL—This nozzle throws a beautiful, misty, curling spray. All annoyance caused by getting in the face is avoided by turning the stem back. This nozzle is adjustable. This shows the nozzle to be turned at any angle desired.



Price, \$1.40; postpaid, \$1.45.

Save neither time or money in obtaining high grade seeds.



BEAN MAJESTIC ANGLE—Throws a very fine, beautiful penetrating spray. Fitted with a movable eddy chamber. The nozzles can be easily taken apart and cleaned. Wearing parts cheaply and quickly replaced. Extra metal furnished with each nozzle. Price, \$1.50; postpaid, \$1.55.

1/4 NOZZLE ELL—It is very important to spray down into the blossom. This piece has just the right angle and screws onto the end of any spray rod. Then attach the nozzle.

Price, 30c; postpaid, 35c.

1/4 NOZZLE Y—The Brass Y shown here will screw onto any spray rod, and all kinds of spray nozzles screw into the other two ends. This is intended for use when two nozzles on one rod are desired.

Price, 60c; postpaid, 65c.



PRESSURE GAUGE—Price, \$2.50; postpaid, \$2.60.

Bamboo Extensions

Threaded for nozzle and stopcock.



ALUMINUM ROD—(Inside Bamboo)—6-foot, \$3.00; 8-foot, \$3.50; 10-foot, \$4.00; 12-foot, \$4.50.

IRON ROD (Inside Bamboo)—6-foot, \$2.00; 8-foot, \$2.25; 10-foot, \$2.50; 12-foot, \$3.00.

RODS ONLY

BRASS—10-foot, \$3.00.

IRON—(Not Inside Bamboo)—5-foot, \$1.00; 8-foot, \$1.25; 10-foot, \$1.50; 12-foot, \$1.75.

Hose

The high pressure and corrosive and oily materials used in spraying are very destructive to ordinary spray hose, and have caused many persons to believe that hose for this purpose cannot be relied upon to last out a season's hard usage. Our Spray Hose is constructed and treated on purpose for this use, and as it saves annoyance and lasts longer, it is much more economical. Furnished in 12½, 25 and 50 foot lengths. Magic (Moulded), 25c per foot; 5-ply, 15c per foot.

This is of extra fine quality.

Fittings, \$1.00 extra. Fittings consist of one hose connection, one female coupling and four hose clamps.

Hose Washers, 1/2-inch rubber, doz., 10c.

SPRAY MATERIALS AND INSECTICIDES

The secret of successful spraying lies in knowing the correct time in which to spray.

The very important fact that thoroughness in spraying is one of the main points should be remembered. Many failures can be traced to the lack of thoroughness.

It is also important that the orchardist should become familiar with the name and character of the different diseases and pests. If the disease is not known apply to your inspector for information. Specimens of diseased fruit or leaves, or other portions of trees or plants, may be forwarded to your state experiment station at no cost, where a careful microscopical examination will be made and the disease identified.

Arsenate of Lead

Arsenate of Lead is a chemical combination of lead and arsenic. The arsenic is the poisoning agent. The lead serves two purposes—it acts as a binder, holding the arsenic upon the foliage and forms a strong chemical union with the arsenic, which causes foliage injury.

PASTE

Grasselli Arsenate of Lead Paste contains 15 per cent arsenic oxide, combined with the maximum amount of lead consistent with good mixing qualities. It contains less than $\frac{3}{4}$ of 1 per cent soluble arsenic and will not injure the most delicate foliage when used according to directions.

It kills all leaf-eating insects. Mixes readily with water. Sticks to the foliage.

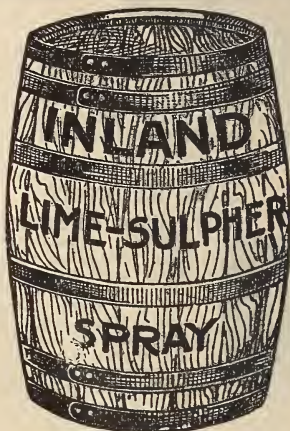
Grasselli Arsenate of Lead conforms to the most rigid requirements of National and State laws governing the manufacture and sale of insecticides.

Owing to the present condition of the market and the great uncertainty of prices next spring, we are unable to make any quotations on Arsenate of Lead or Lime and Sulphur Solutions. Write for prices, stating quantity wanted and we will gladly give you our lowest quotations.

Powdered

Grasselli Dry Powder Arsenate of Lead mixes quickly and easily; stays mixed longer and is very adhesive. Dry Powder Arsenate is a light, fluffy powder that cannot freeze, dry out, cake or lose its strength.

Grasselli Dry Powder Arsenate of Lead may be mixed with water and applied as a liquid spray or it may be used as a dust spray. If applied as a liquid spray it is usually used 1 pound to $1\frac{1}{2}$ pounds to 50 gallons of water. For potato beetles and other insects that are hard to kill use two to three pounds to 50 gallons of water. If used in the dust form it may be applied as received by finely dusting on the foliage or it may be mixed with an equal bulk of freshly burned wood ashes or powdered lime.

INLAND LIME AND SULPHUR SOLUTION

It is a true calcium sulphide—a true calcium sulphide means a perfect chemical combination of lime and sulphur, free from all sediment, uniformity which guarantees the same identical treatment as to strength and effect tree for tree, and which allows the wash to be applied to delicate bud life, blossom condition and foliage as well as the dormant tree, both for fungicidal and insecticidal troubles as well as San Jose Scale, Oyster Shell Bark, Louise, Moss, Apple and Pear Scab, Slug Worms, etc. The wide range of diseases that fruit trees are subject to that it will control, proves it to be the best general fruit sprayer that has yet been discovered. Please note that this is guaranteed to be 30 degrees and over, while a great deal of the lime and sulphur solution runs about 28, hence will not stand as much of a reduction. The best is always the cheapest.

SOLUBLE SULPHUR COMPOUND

This compound is analogous in chemical form to the calcium polysulphides of a high grade lime-sulphur solution.

Extensive use of this material during the past years, and its entering into nearly every fruit district of the United States and Canada, fully demonstrates the value, economy and convenience of Soluble Sulphur Compound. Soluble Sulphur is the sulphur spray with the water let out.

It is ready for the user to add the water and in an instant have a true sulphur solution. It dissolves readily, it being necessary to stir for a few moments only as the material is put in the water. Once dissolved it remains in solution for an indefinite time.

One hundred pounds of Soluble Sulphur Compound makes more spray than a fifty-gallon barrel of thirty-three degree lime-sulphur solution weighing over six hundred pounds, thus effecting a saving on freight charges.

There is no leakage, no freezing, no crystallization. It should be used on all kinds of trees and shrubs in spring, before buds open, San Jose Scale, Aphids, Curl Leaf, Mildew, and as a general clean-up; and later for control of Scab and Fungus diseases.

Soluble Sulphur Compound will keep indefinitely, without loss of strength, if the can be kept tightly covered and in a dry place.

Write for Prices on Lead, Etc.

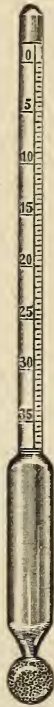
SPRAYOMETER

The Lime-Sulphur wash for spraying has become recognized by the orchardist as one of the best and most economic remedies for numerous forms of disease, fungi and insects, injurious to fruit trees.

It is necessary to know the strength or weight of the solution and the only practical way of ascertaining this is by means of a Hydrometer. The Hydrometers made for this purpose are known as "Sprayometers." In selecting these instruments consideration should be given to the fact that only the most accurate will give the best results, and that "Taylor-Rochester" is a synonym for accuracy.

SPRAYOMETER SET, consisting of one LISUL Sprayometer, one 12-inch plain Glass Cylinder in wooden container, with full instructions. Per set, \$1.50; postpaid, \$1.75. Sprayometer only, \$1.25; postpaid, \$1.50.

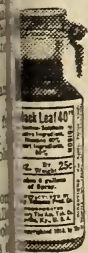
We appreciate the orders you have already favored us with and hope for their continuance.



BLACK LEAF "40"

Concentrated Solution of Nicotine-Sulphate (Poison)

*Our
principle
is
quality
first and
all
the time.*



For the convenient information of those desiring to use "Black Leaf 40" the following suggestions are made:

Against sucking insects, such as Green and Holly Aphids, Pear Psylla, Grape Leaf Hopper, Pear Thrips, etc., 1 part "Black Leaf 40" about 900 to 1,000 parts water.

Against more resistant plant lice, such as Black Aphids and Rosy Apple Aphids, 1 part "Black Leaf 40" to about 500 to 700 parts water.

The addition of one or two pounds of any good soap, or of Whale Oil soap, to each 50 gallons of water is often very advantageous. When using dissolve the soap in the water before adding "Black Leaf 40."

Price, 1 oz. bottle, 25c; ½ lb. tin, 75c; 2 lb. tin, \$2.50; 10 lb. tin, \$10.75. Not mailable.

Bluestone

Used successfully in winter sprays. Lb., 30c postpaid. If wanted in 100-lb. or barrel lots, market price.

BORDEAUX MIXTURE PASTE-- GRASELLI

A fungicide for Potato Blight, Potato Rot, Mildew, Leaf Blight, Cutworms, etc. Before bloom use 1 lb. to 6 gallons of water, after bloom use 1 lb. to 10 gallons.

Write for prices.

Put up in one and five-pound jars. Not mailable.



For many years the gardeners of the Pacific Coast have suffered from a scourge of root-maggots and worms that has made gardening, if not impossible, much more unprofitable than it should have been. Many remedies have been tried with little success until the "Carco" formula was discovered.

The root-maggot, as well as the strawberry crown borer, is hatched from an egg deposited on the plants by the maggot fly. This fly dislikes the odor of the spray and will not deposit the eggs where this odor is present. To get best results the ground should be sprayed freely before planting, then again as soon as the vegetable comes up and before the maggot fly makes its appearance. The spray will kill maggots, grubs, cutworms and caterpillars by contact when freely used. Remember, the spray will not kill any pests that it does not come in contact with, so spray thoroughly. It will not kill maggots or worms that have eaten into the roots or that are hidden in the leaves of the cabbage and cauliflower, where the spray can not reach. It is better to spray early and often enough to prevent the deposit of eggs than to wait and kill the worms.

The spray should be reduced one part spray to 125 parts water. This will depend somewhat on local conditions. In wet weather and when there is lots of moisture, apply mixture of about one part spray to 100 parts water.

Ordinarily an application every three or four weeks should be sufficient to keep vegetables entirely free from pests.

The spray is easily applied. Simply add the necessary water and stir up. It emulsifies freely and will not settle. Apply with an ordinary hand sprinkler, as this is much better than an atomizer or pump sprayer.

Half pints, 30c; pints, 50c; quarts, 80c; ½ gallon, \$1.25. Not mailable.

Include postage when necessary

SPRAY CALENDAR

NAME	DESCRIPTION	TREATMENT
AFFECTING THE ROOTS—		
1. Woolly aphids.....	Small galls containing mealy insects.....	Expose roots, wet with tobacco or 1 per cent potassium cyanide solution.
2. Grubs and wireworms.....	Feeding on the roots.....	No available spray treatment. Seek out and destroy insects.
3. Gophers.....	Feeding on the roots.....	Trap; or poison with raisins containing strychnine set in runways.
4. Hairy-root.....	Excessive development of fine roots from a larger root.....	No remedy. Do not plant affected stock.
5. Crown gall.....	Smooth to warty swellings of various sizes.....	No remedy. Do not plant affected stock.
6. Crown-rot.....	Dead, sunken bark at crown of tree.....	Avoid forcing the growth of young trees.
7. Mushroom root-rot.....	White, fan-like growth beneath bark.....	Scrape wash with solution of copper sulphate, and bridge-graft.
AFFECTING THE CROWN OR TRUNK—		
8. Rabbits and field mice.....	Gnawing bark in winter.....	Coat trunk in winter with whitewash containing strong sulphur-lime.
9. Borers.....	Tunneling beneath bark or into heartwood.....	Coat trunk in summer with whitewash. See No. 8.
10. Canker, Anthracnose.....	Irregular, discolored sunken areas.....	No remedy when these cankers are due to winter injury. If black-spot canker spray with Bordeaux in November and 3 deg. sulphur-lime in February.
11. Black-heart.....	Heartwood dead and stained blackish brown.....	No remedy known.
AFFECTING THE BRANCHES AND TWIGS—		
12. San Jose scale.....	Ash-gray or black, round scales, pinhead in size..... (Many broods a year)	Oil spray or sulphur-lime about March 1.
13. Oyster-shell bark-louse.....	Slender bark-colored scales filled with eggs, which hatch about June 1. (One brood a year).....	1. Tobacco when young are hatching (about June 1). 2. Oil spray or sulphur-lime (3 deg.) in fall or spring.
14. Woolly aphids.....	Clusters of mealy lice, often near injured bark.....	Tobacco spray.
15. Orchard mite eggs.....	Microscopic salmon-red spherical eggs.....	Oil spray.
16. Aphids.....	Minute oval jet-black eggs (winter).....	Oil spray or sulphur-lime, 3 deg., before buds swell; or tobacco when plant-lice hatch, or tobacco after lise fly to trees.
17. Tent caterpillar eggs.....	Frothy mass encircling a twig.....	Oil spray; or arsenical when caterpillars hatch. (See No. 35).
18. Lecanium.....	Hemispherical brown scales.....	Oil spray; or tobacco when scales hatch.
19. Cottony scale.....	Brown scales that develop cottony mass in the fall.....	Oil spray.
20. Cicada and tree cricket.....	Twigs slit to contain eggs.....	Prune off infested twigs before eggs hatch.
21. Bark beetle.....	Tunneling under bark.....	Not likely to attack vigorous trees. Cut infested places.
22. Lichens.....	Popularly known as moss.....	Winter spray of oil emulsion or sulphur lime, 3 deg.
23. Gummosis of cherry.....	Glistening mass of amber-colored gum on branches.....	Caused by scale, bacteria, aphids, over-irrigation, etc.
24. Fire-blight of pear and apple.....	Dead leaves and fruit hanging to blighted branches; blackish, water-soaked cankers.....	Prune away blighted branches, wash pruned surfaces with 1 part of corrosive sublimate to 1000 parts of water.
25. Winter-kill or die-back.....	Death of branches from tip downward.....	No remedy. Remove dead wood.
26. Peach blight.....	Spotting of green twigs and formation of a gum.....	No remedy. Remove dead twigs. Sulphur-lime in early spring.
AFFECTING THE BUDS, NEW LEAVES, OR BLOSSOMS—		
27. Bud-weevils.....	Hard-shelled beetles that drop when disturbed.....	Use cone tree-protector or stiff paper or tin.
28. Cutworms.....	Work at night; live in ground during day.....	Coat tree with Bordeaux. Scatter poison mash near tree.
29. Ants.....	Eating buds, young leaves, and blossoms.....	Pour one per cent potassium cyanide solution in nest.

NAME	DESCRIPTION	TREATMENT
AFFECTING THE BUDS, NEW LEAVES, OR BLOSSOMS—(Continued)		
30. Bugworm; twig-borer.....	Working in terminal growth curling leaves.....	1. Oil spray or sulphur-lime, 3 deg., when buds swell.
31. Snapping beetle.....	A small brown spinning worm.....	2. Arsenate of lead when injury noticed.
32. Chafer beetle.....	Feeding in the blossoms.....	No treatment.
33. Salmon-fly.....	Eating through the blossoms.....	No treatment.
34. Thrips.....	Feeding in the blossoms.....	Spray with arsenate of lead.
	Minute, active, slender insects.....	Tobacco.
AFFECTING THE FOLIAGE—		
35. Tent caterpillars.....	Working from web-nests.....	Spray with arsenate of zinc when caterpillars appear, burn with torch.
36. Tussock moth.....	Caterpillars covered with bunches of hairs.....	Spray with arsenate of zinc when caterpillars appear.
37. Red-hump caterpillar.....	Striped caterpillars with red head and collar.....	Spray with arsenate of zinc when caterpillars appear.
38. Cabbage-worm.....	.....	Spray plants with Bordeaux, and scatter poison mash.
39. Climbing cutworm.....	.....	See No. 28.
40. Pear and cherry slug.....	Slimy caterpillars feeding on upper surface.....	Spray with arsenate of lead, or dust with lime, ashes.
41. Black aphids.....	On cherry.....	Spray early with tobacco.
42. Green aphids—Pink aphids.....	.....	Tobacco (summer), oil spray, or sulphur-lime, 3 deg. (winter).
43. Blister-mite.....	Red, brown to black spots; on pear.....	Oil spray or sulphur-lime when dormant.
44. Leaf-Hopper—Tingis.....	Sucking insects producing spots in leaves.....	Tobacco spray.
45. Orchard Mite.....	Causing leaves to yellow.....	Tobacco when noticed. See No. 15.
46. Peach leaf-curl.....	Leaves puckered, becoming rose or purple.....	Spray sulphur-lime before leaves appear.
47. Powdery mildew.....	Whitish patches on leaves, twigs and fruit.....	Spray sulphur-lime, 1½ deg.
48. Rosette.....	Cessation of twig growth, rosetting of leaves.....	No remedy known; interfere.
49. Shot-hole diseases.....	Brown spots on leaves, later falling out.....	Spray with sulphur-lime when buds are swelling.
AFFECTING THE FRUIT—		
I. Infesting the Outside of the Fruit:		
50. San Jose scale.....	Usually surrounded by red ring.....	No summer treatment. See No. 12.
51. Oyster-shell scale.....	Shaped like miniature mussel-shell.....	No summer treatment after scale is formed. See No. 13.
52. Caterpillars.....	Several species may nibble on skin.....	Arsenate of lead as soon as injury is noted.
53. Apple scab.....	Dull greenish-black patches on leaves and fruit.....	Destroy fallen leaves. Use sulphur-lime, 1½ deg. before blossoms open, where scab is abundant repeat after petals fall.
54. Brown rot of prunes.....	Small circular brown spots, giving rise to spore-tufts.....	Destroy mummified fruit; spray sulphur-lime in summer.
55. Baldwin speck; fruit spot.....	Skin spots appearing early, works into fruit.....	No remedy known.
II. Infesting the Inside of the Fruit:		
56. Codling-worm.....	The common worm in apple or pear.....	Arsenate of lead, with force directly into every flower. Keep a few trees banded. If many worms are trapped, later spraying may be given.
57. Peach worm.....	Same insect as twig borer.....	No satisfactory summer treatment. See No. 30.
58. Apple saw-fly.....	Green caterpillar mining in fruit.....	No known treatment.
59. Water core.....	.....	Do not leave too long on trees.

SPRAY CALENDAR—(Continued)

HOW TO SPRAY

Spray thoroughly. Reach the bottom of every crack. Fill the lower calyx cup. Do not try to economize on spray. For all orchard spraying use a high pressure pump (at least 200 lbs.). Have a crook to set the nozzle at an angle of forty-five degrees. Spray from a tower if the trees are beyond your reach.

Sulphur-Lime

Sulphur	1 pound
Fresh stone lime	$\frac{1}{2}$ pound
Water	$\frac{1}{2}$ gallon

Slake the lime in the cooker. Add the sulphur and the water. Boil briskly till the sulphur is dissolved (about 45 minutes), stirring continuously and keeping the cooker covered. As it boils down keep adding water. When finished let settle. Use only the clear liquid, which may be stored if kept from the air. Prepared in this way sulphur-lime should have a hydrometer reading of about 26 degrees, somewhat weaker than the factory-made product. Write for bulletin No. 64.

For use, any concentrated sulphur-lime may be diluted according to the following table:

Hydrometer test of concentrate		To make dilute spray	
Beaume Degrees	Specific Gravity	Beaume, 3°	Beaume, 1.5°
34	1.302	Sp. gr. 1.02	Sp. gr. 1.01
32	1.279	1 lb. sulphur in 5 gal.	1 lb. sulphur in 10 gal.
30	1.259	Wint'r spray	Summ'r spray
28	1.236	1 to 14 water	1 to 28
26	1.215	13	26
24	1.196	12	24
20	1.158	11	22
16	1.122	10	20
		9	18
		7	14
		6	11

Oil Spray

Crude oil emulsion for winter spraying:
Fish-oil soap (Dissolved in 10 gal. hot water).....10 pounds

Lye (Dissolved in 1 gal. water).....2 pounds

Mix, add water to make 38 gal., run agitator at full speed, and add.....10 gallons
Crude oil (not fuel oil)
When emulsified do not add anything else to the spray-liquid, or free oil will separate. Write for Bul. No. 64.

Tobacco

Blackleaf 4012½ pounds
Fish-oil soap35 pounds
Water1000 gallons

Dissolve the soap in hot water. Blackleaf (old style) is one-tenth as strong.
For orchard mites or scab add 36 gallons of 32° sulphur-lime.

Bordeaux

Bluestone6 pounds
Good lime4 gallons
Water50 gallons
Dissolve the bluestone by suspending it in a sack in 25 gallons of water in a barrel. Slake the lime in another vessel, adding a little water slowly, and dilute to 25 gallons. Mix the two thoroughly. Even the best Bordeaux may scorch in rainy weather.

Poison Mash

Bran or flour25 parts
Paris green or zinc arsenate.....1 part
Mix dry, add water to form a stiff mash and season with stale beer, molasses or ground-up lemons.

Arsenate of Lead

Arsenate of lead (poison)1 pound
Water50 gallons

For newly hatched insects it is not necessary to use it stronger. For old or large insects use double the quantity. Mix the paste well with a small amount of water. Powdered arsenate of lead is about twice as strong as the paste. Do not use arsenate that settles quickly or feels gritty.

Arsenate of zinc powder is about four times as strong as paste lead. It may scorch in a damp season.

Program for the More Usual Spraying

- When buds begin to swell
Oil spray of sulphur-lime (3°)
For scales, insects and fungi
 - When new foliage is first appearing
Tobacco
For aphids, orchard mites, thrips, leaf-hoppers
When arsenate added
For budworm, twig-borer
When flower clusters are ready to open
Sulphur-lime (1.5°)
For apple and pear scab
For orchard mites, thrips, aphids
When last petals are falling
Arsenate of lead, 1 lb., to 50 gal.
For codling moth
 - In November (for Western Washington)
Sulphur-lime (3°) or Bordeaux
For black-spot canker
- Additional summer sprayings may be needed, as for codling moth, aphids, young oyster shell scales, orchard mites, etc.

FORMALDEHYDE

This has proved to be much better than vitrol, etc., for treating grain to prevent smut or for treating potatoes to prevent blight and scab. One pound is sufficient to treat 40 to 50 bushels of grain. 1/2 lb. bottle, 35c; 1 lb. bottle, 60c; 5 lb. bottle, 90c; gallon, \$3.25. Not mallable.

Hammond's Grape Dust



To prevent mildew on roses, grapes and gooseberries. Lb., 25c; 5-lb. pkg., \$1.00. Add postage.

Hammond's Slug Shot



For destroying slugs, cabbage and turnip flea, currant worms, etc. Lb. pkg., 20c; 5-lb. pkg., 1.00; add postage.

Hellebore

Especially used for destroying turnip, currant and gooseberry worms, larva of sawflies, etc. Lb., 50c; add postage.

Nico-Fume Tobacco Paper

For fumigating greenhouses and other places where fumes can be confined. Considered indispensable by our most successful greenhouse men. Price, 24 sheets, 85c; 144 sheets, \$4.00. Weight, 1 lb. and 5 lbs. Add postage.

Paris Green

Poor Paris Green is dear at any price. Effective against all chewing insects. Packed in 1 lb., 1/2 lb., 1 lb., 5 lb. and 10 lb. Owing to present conditions we are unable to quote prices. Write for prices, stating what size and quantity you desire to purchase.

Quassia Chips

Used with Whale Oil Soap for lice on cabbage, cauliflower, etc., and on fruit trees. Lb., 10c; add postage.

Sulphur

Powdered, lb., 10c, add postage; 100 lbs., market price.

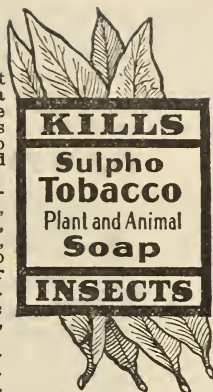
SULPHO-TOBACCO

Sulpho-Tobacco plant and Animal-Soap is a wonderful agent for the destruction of all bugs and insects. One or two applications will rid plants of the pests.

Destroys cabbage, potato and squash bugs, currant worms, lice, green-fly, mealy bug, red spider, etc. Is also valuable as a wash for dogs and other animals.

3 oz. cake makes 1 1/2 gallons solution. Price, 10c; postpaid, 15c.

8 oz. cake makes 4 gallons prepared solution. Price, 20c; postpaid, 25c.



Tobacco Dust

For green and black aphid, fleas, beetles. Lb., 10c; 10 lbs., 75c; 25 lbs., \$1.75; 50 lbs., \$3.25; 100 lbs., \$6.00; add postage.

Fish Oil Soap

For hop louse and green aphid. Lb., 15c; add postage; 100 lbs., market price.

Woodlark Squirrel Poison

Requires no mixing preparation—always ready for use. When you buy demand the best. Get the "Woodlark", brand. Lb., 40c; 10-lb., \$3.50; 25-lb. pail, \$8.00. Not mallable.

KILMOL—Squirrelgophene

Kilmol is the name given to a recent discovery made by the United States Government. This is used for the extermination of squirrels and gophers and results obtained are 100 per cent efficiency. Careful tests under Government supervision have proven that Kilmol is the most effective and economical exterminator that has yet been discovered. The cost of clearing your field of these pests averages from 18 to 28 cents per acre.

The gas made by vaporizing Kilmol on a waste ball is much heavier than air and settles to the bottom of the burrow. Only a small amount escapes even though the surrounding ground be full of cracks. It is practical to use Kilmol.

Gallon, \$2.25; 5 gallons, \$8.50. Not mallable.

Waste Balls

Extermination of underground pests can be accomplished during the wet season by using Kilmol and waste balls. Each waste ball absorbs one ounce Kilmol, the proper amount for treating one burrow. If any other material but Kilmol is used, two waste balls are required.

DIRECTIONS—Put one hundred and twenty waste balls in a bucket, and pour over them one gallon of Kilmol. Use one waste ball to each burrow. After a lapse of from three to five minutes ignite the gas in the burrow with a match or torch. Cover the opening with dirt, packing it closely to prevent the escape of the poisonous fumes.

Another method is to roll the ball into the burrow, and close the opening tightly without exploding. This is used when the ground is dry and there is danger of fire. By the firing method the efficiency is from 98 to 100 per cent. Without exploding, 95 to 98 per cent.

Kilmol is the only liquid that will give this percentage of efficiency. No other material will give more than from 75 to 85 per cent. The 15 to 25 per cent that are not killed necessitates going over the land at least twice and often three times. Once over is sufficient when Kilmol is used. 100, 75c; 500, \$3.25; 1,000, \$6.00. 100 waste balls weigh 3 lbs. Add postage.

Owing to the impossibility of knowing the exact cost and the probable advance in prices of all spraying material, would suggest writing for prices if you want a quantity.

The present quotations will be maintained throughout the season if it is possible to do so, but quotations made are subject to either an advance or decline.

TREE TANGLEFOOT



To protect trees against climbing insect pests in a simple, economical and effective way, use Tree Tanglefoot—a sticky substance applied directly to the bark of trees. One application remains sticky three to four months fully exposed to the weather. Easily applied with a wooden paddle. One pound makes a band 8 to 9 feet long. No mixing, always ready for use. Will not injure trees. Lb. can, 50c; 3-lb. can, \$1.50; 10-lb. can, \$4.50. Mailing weight, 2, 4 and 11 lbs.; add postage.

Clover Leaf Fruit Ladder

A very popular ladder for young orchards. Leg easily slipped between the limbs of the trees.

Front of ladder is an exact duplicate of our Inland Ladder.

Weight about 2½ lbs. to the foot.

Following sizes kept in stock for prompt shipment:

6-ft., bot. spread, 30 ins.

6-ft., bot. spread, 30 ins.

10-ft., bot. spread, 40 ins.

12-ft., bot. spread, 42 ins.

Price, 40c per foot.



Inland Fruit Ladder

Full rodded. Wide spread at bottom. All steps over 8-foot lengths are trussed.

Rails ¾x2½ ins.

Steps, ¾x2½ ins.

Weight about 2½ lbs. to the foot.

Following sizes kept in stock for prompt shipment:

6-ft., bot. spread, 30 ins.

8-ft., bot. spread, 35 ins.

10-ft., bot. spread, 40 ins.

12-ft., bot. spread, 42 ins.

Price, 40c per foot.



CLOVER LEAF FRUIT PICKING BAG



Two things are desired in picking fruit: First safety of the fruit; second, speed in picking. The Clover Leaf Picking Bag combines both.

Constructed of heavy canvas with a spring steel frame at the top, the opening in which the fruit is placed, is large. The lower end of the bag folds squarely back to the steel frame at the top. The lower portion of the sack being held securely by means of an ingenious fastener attached to the steel frame.

When one wishes to empty the filled sack, it is but the work of a moment to release the cord from this fastener and the fruit may then be gently deposited in the boxes, through the now open lower end of the sack. Two broad shoulder straps insures comfort to the picker even when the sack is full. Both of the pickers' hands are free for his work. He can work faster and with greater comfort than with other picking devices.

Price, \$1.75. Weight, 3 lbs. Add postage.

Write for definite price, as this quotation is subject to change.

Inferior Seeds are dear at any price. High grade Seeds are cheap at any price. Our Seeds are always high grade.

LID PRESS

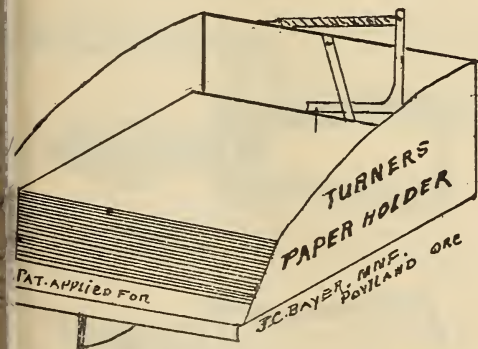


All fruit growers sooner or later feel the need of a good, durable and handy LID PRESS.

SAVING TIME is just as essential in the packing house as it is in the shop or factory. A number of special features of the Edgemont Lid Press are time-savers, which are quickly appreciated by the user. The stripper nail box delivering the nails all pointed down; the placing of the lids in position endwise by the clamping yoke; the little spring attachment holding the cleat in place, all tend to make nailing an easy, quick and simple operation. Price, \$17.50. Before ordering we would suggest that you secure price, as this may not be the selling price in fall of 1918.

Nail Stripper, \$3.00.

PAPER HOLDER



The only paper holder in which the tension remains the same at all points of the needle. The spring is adjustable to different kinds of paper and by using the proper adjustments, you are assured of one paper at a time, thereby getting better results and saving paper.

A Packer will pack from four to six boxes more of fruit per day than with any other device on the market.

The holder is absolutely free feeding and will not clog in any kind of paper.

Made of durable metal throughout and will last a life-time. Used by all first-class packers.

Price, \$1.50. Weight, 4 lbs. Add postage.

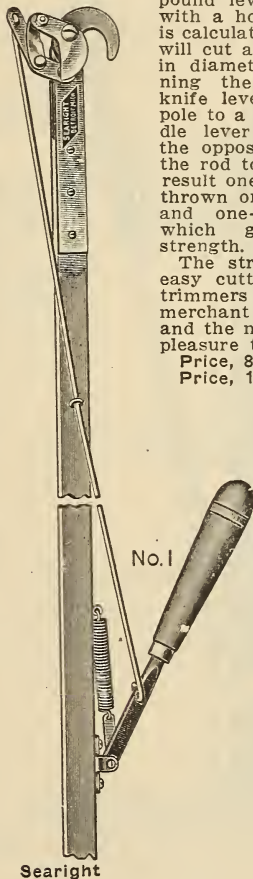
PRUNERS

SEARIGHT—This has a compound lever head and is made with a hook and side lever. It is calculated for heavy work and will cut a limb up to 1½ inches in diameter. Instead of running the rod connecting the knife lever along one side the pole to a handle lever, the handle lever has been placed on the opposite side, which allows the rod to cross the pole. As a result one-half of the strain is thrown on one side of the pole and one-half on the other, which gives about double strength.

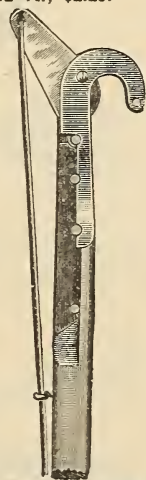
The strength, durability and easy cutting qualities of these trimmers will appeal to both the merchant who handles them, and the man who may have the pleasure to use them.

Price, 8 ft., \$2.00.

Price, 10 and 12 ft., \$2.25.



Searight



Waters' Improved

WATERS' IMPROVED—Indispensable in pruning tall trees. Cannot go by mail. Purchaser will have to pay freight or express charges. Price, 6 ft., \$1.15; 8 ft., \$1.25; 10 ft., \$1.35; 12 ft., \$1.50; extra blades, 20c each.

WATERS SPECIAL—This Pruner is made on the same principle as the Waters' Improved, but is much stronger in every way, being designed for use where the regular Waters' Improved was too light to stand abuse. The hook or head of the Waters' Special is made of malleable iron, having ribs on the outside giving it great strength; it also laps around the pole about two inches farther down than the Waters' Improved. The knife or blade is made of heavier steel and is fitted with a strong coil spring that carries the blade back so it is always in a cutting position. Price, 6 ft., \$1.40; 8-ft., \$1.50; 10 ft., \$1.65; 12 ft., \$1.75; extra blades, 25c each.

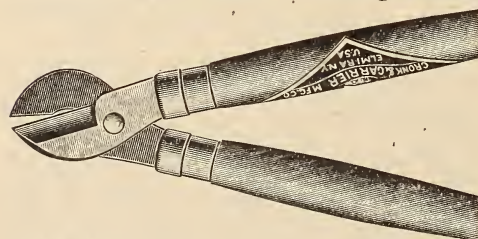
THE RHODES POLE SHEAR—The Rhodes is the only pruning shears that cuts from both sides of the limb and does not bruise the bark. Length, 10 feet. Price, \$2.00.



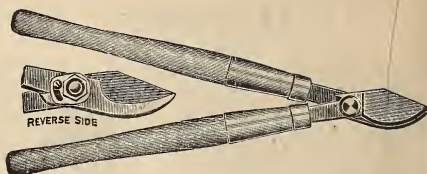
The Rhodes Pole Shear.

THE RHODES DOUBLE CUT PARK AND BRUSH PRUNER for pruning shrubbery, berry bushes, etc. Made in one size; length, 3 feet. Price, \$2.00.

Cronk's Wood Handle Pruning Shears



Steel ferrule. Notched hook (patented), prevents slipping, gives greater leverage, and makes cutting easier. No. 9½, 26 inches. Weight, 3 lbs. Price, \$1.25; add postage.

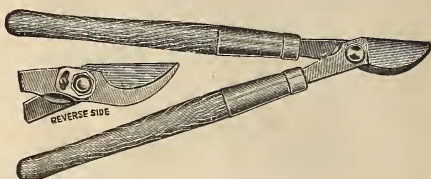


FRESNO PATTERN NO. 126—Forged from high grade tool steel, finely tempered. Solid wrought steel ferrule. Has lock nut and can not work loose and ruin the shears. Riveted handle. Strictly high grade and has no equal.

26 inches, weight 3 lbs. Price, \$2.25.

30 inches, weight 4 lbs. Price, \$2.40.

Add postage.



Cronk's Cartright Pattern No. 226

Forged from high grade tool steel and finely tempered, wrought steel ferrule polished. Has the Cronk patent locknut and cannot work loose and ruin the shears.

and ruin the shears. Riveted handle.

26 inches, weight 3 lbs. Price, \$2.60.

30 inches, weight 4 lbs. Price, \$2.75.

Add postage.

Extra handles, with ferrules, 20 and 24 inches. Each, 50; postpaid, 55c.

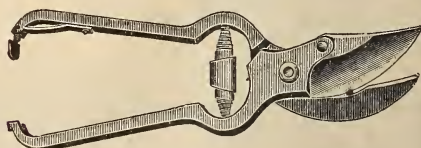
Hand Pruners



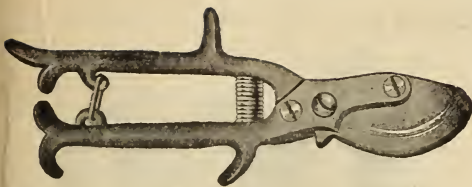
No. 4—This pruner will be found second to none in easy cutting quality, material and workmanship. Polished. Price, \$1.50; postpaid, \$1.55.



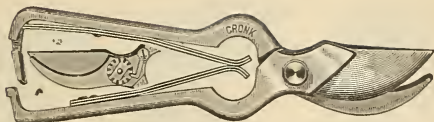
17—Length, 9 inches. Detachable polished tempered steel blade. Price, 75c; postpaid, 80c.



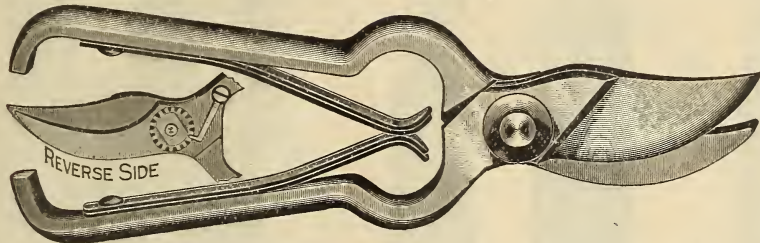
27—Length, 9 inches. Detachable blade of cutlery steel. Notched hook, forged from tool steel, full polished and tempered. Price, \$1.50; postpaid, \$1.55.



No. 200—Henry pattern. Cast handles. Steel blade. Length, $8\frac{1}{2}$ inches. Price, 40c. Postpaid, 45c.

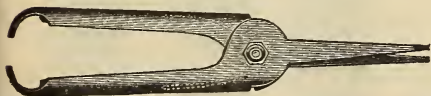


600—Forged from best cutlery steel, full polished, $8\frac{1}{2}$ inches. Price, \$2.25; postpaid, \$2.30.



No. 700—Ratchet nut. Brass spring. Extra quality steel. Length, $8\frac{1}{2}$ inches. Price, \$2.75; postpaid, \$2.80.

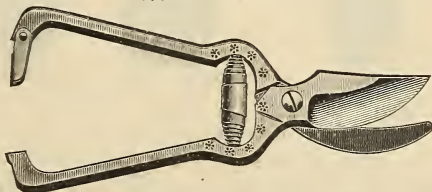
GRAPE OR THINNING SHEARS



101—Length, $6\frac{1}{2}$ inches. Made extra heavy. Price, 50c; postpaid, 55c.

Include postage when necessary

ROSE SHEARS

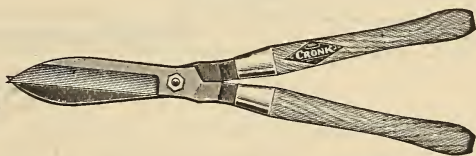


250—Forged from best cutlery steel. Nickel plated, 7 inches. Price, \$1.25; postpaid, \$1.30. Volute springs for hand prunes. Each, 10c. Volute springs for thinning shears. No. 203. Each, 10c.

Shears



203—Same as 101 but longer and has volute spring. Price, 60c; postpaid, 65.



HEDGE—Polished tool steel blades; polished hardwood handles; cut 8 inches. Notched in order to cut larger branches. Price, \$2.50; postpaid, \$2.60.

Our firm belief is that the quality of seeds is the first consideration. Our aim is to supply the very highest grade of seeds.

Knives



PX3H

PX761

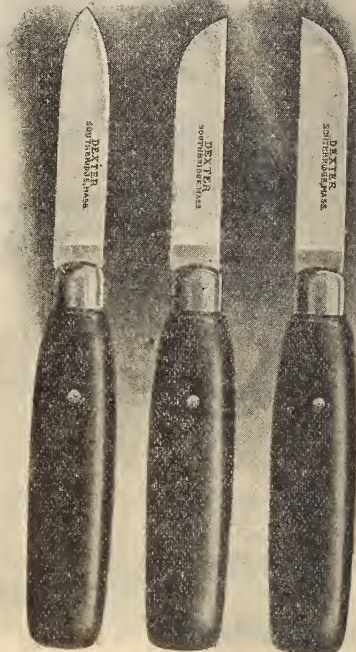
PX2HS

PX3H—60c; postpaid, 65c.

PX761—50c; postpaid, 55c.

PX2HS—60c; postpaid, 65c.

All of the blades are made from a very high grade English crucible tool steel; they are given the proper temper for the particular work required; they all are ground sharp and hand honed, leaving them ready for use. The handles are oval rubberoid of a shape to fit the hand. The ferrules are of heavy construction, oval, nickel plated, and the blades are pinned in handles, preventing any possibility of their coming out or becoming loose.



2 1/2 V

2 1/2 J

2 1/2 Z

Grafting, No. 2 1/2 V—50c; postpaid, 55c.

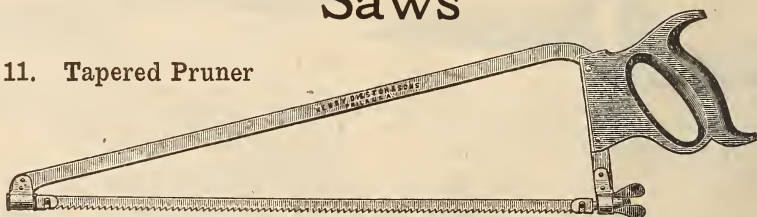
Budding, No. 2J—50c; postpaid, 55c.

Budding Spear, No. 2 1/2 Z—50c; postpaid, 55c.

Include postage when necessary

Saws

No. 11. Tapered Pruner



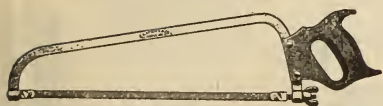
We have selected the following saws because they are the highest grade saws we could procure. Please note that they are all made of the finest quality of Silver Steel.

In common with other manufacturers, E. C. Atkins & Co. make these same saws in different grades. The different grades of saws are made from different grades of steel.

The prices are higher than the ordinary saws offered for sale, but they are considered the most economical and best to use, because of the better service they render.

This is a very strong, rigid and popular style of saw. The frame is tapered so as to reach out of the way spots. It is made of high-grade crucible steel, 3/4 of an inch wide and 3-16 of an inch thick. The blade is 16 inches long and is fastened to the frame by a turnbuckle arrangement so that the blade may be used at an angle. Price, \$2.00; postpaid, \$2.10.

No. 10. Tapered Pruner



The frame is made of extra high quality spring steel, $\frac{5}{8}$ of an inch wide and $\frac{1}{4}$ inch thick. It is 17 inches long. The blade is our extra high-grade quality Pruning Saw steel, 16 inches long. The handle is ATKINS new easy grip pattern and is in popular favor wherever used. It is made of beechwood thoroughly seasoned, highly finished and polished on the edges, fastened to the frame by two brass screws. The blade is adjustable so that the Saw will cut at any angle. Price, \$2.00; postpaid, \$2.10.

No. 3. Duplex Pruner



This saw is similar to the No. 2, excepting that the blade is made of our finest quality Silver Steel and will receive a remarkably sharp cutting edge and retain it for the longest possible time. The handle is made of thoroughly seasoned applewood, highly polished and finished. Length, 18 inches. Price, \$1.50; postpaid, \$1.60.

No. 1. Atkins Table and Pruning Saw



This is one of our older patterns and is still in popular favor in many sections of the country. The blade tapers from $2\frac{5}{8}$ inches to 1 inch, and is made of genuine Silver Steel. The finest steel that has ever been used in saw blades. The handle is of hardwood, finely finished, polished edge. Blade is 18 inches long. Price, \$1.25; postpaid, \$1.35.

No. 13. California Pruner



This saw is used almost exclusively for pruning grape vines. The blade is of our finest quality Silver Steel which is superior to any other saw steel. The curved blade makes cutting easy. The handle is of highly finished applewood. Blade is 14 inches long. Price, \$1.00; postpaid, \$1.10.

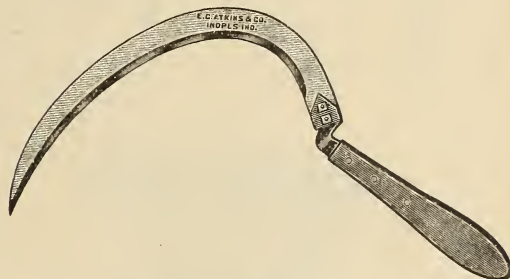


We recommend this set for general purposes. It consists of a keyhole, compass and pruning saw blade and handle as illustrated. Price, \$1.75; postpaid, \$1.80.



No. 4—Saw screws, beech handle, varnished edge. 12 and 14 inch lengths. Price, 50c; postpaid, 60c.

Atkins Perfection Grass Hook



The above specialty will be thoroughly appreciated by all users of Grass Hooks. The hooks are meeting with an extra demand wherever shown.

The blade is of Silver Steel and will hold its edge much longer than the material usually placed in similar tools. It is extremely light and does not tire the wrist. Fitted with a hardwood, easy grip handle, securely fastened to a malleable casting by strong rivets. The curve of the blade is such that the entire cutting edge is constantly in use. Corners and out-of-the-way spots may be easily reached.

The handle being offset, saves the knuckles from becoming bruised. Price, 75c.

GRASS SHEARS—For trimming ground, flower beds, etc. Weight, 1 lb. Each, 50c; postpaid, 55c.

Beeswax

Price, 60c; postpaid, 70c.

Grafting Wax

One-half lb., 20c; postpaid, 25c; 1 lb., 35c; postpaid, 45c.

Labels

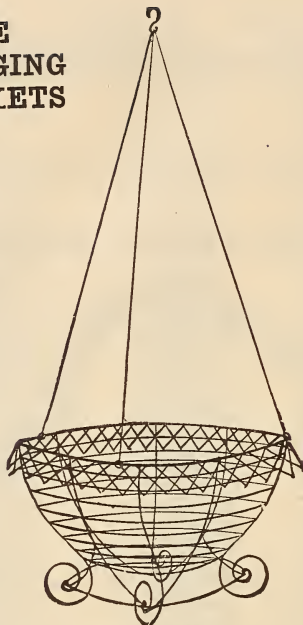
		100	500	1000	Weight per 1000
Pot. Plain	4x5 $\frac{5}{8}$	\$0.15	\$0.55	\$1.00	5 Lbs.
Pot. Plain	5x5 $\frac{5}{8}$	.20	.70	1.15	6 Lbs.
Pot. Plain	6x5 $\frac{5}{8}$	.20	.85	1.40	7 Lbs.
Pot. Plain	8x3 $\frac{5}{8}$	.30	1.25	2.25	12 Lbs.
Pot. Painted	5x5 $\frac{5}{8}$	.20	.90	1.60	6 Lbs.
Pot. Painted	6x5 $\frac{5}{8}$	.25	1.10	2.00	7 Lbs.
Pot. Painted	8x3 $\frac{5}{8}$	.30	1.50	2.75	12 Lbs.
Tree, Unwired	4x5 $\frac{5}{8}$	.15	.55	1.00	5 Lbs.
Iron Wired	3 $\frac{1}{2}$ x5 $\frac{5}{8}$	.15	.60	1.25	4 Lbs.

Add postage.

Raffia

Natural color, for nursery work. $\frac{1}{4}$ lb., 15c; lb., 35c; postpaid, 45c.

WIRE HANGING BASKETS



Painted Green.

You no doubt have noticed that most of the hanging baskets on the market have the parallel wires on the sides laced to the ribs by means of a very light lacing wire. This wire soon rusts out, and then the basket falls to pieces.

Please note the construction of the basket here shown and you will readily see that the different wires are electrically welded together, thus forming a solid construction, making all parts equally durable, and thus making it impossible for it to fall apart.

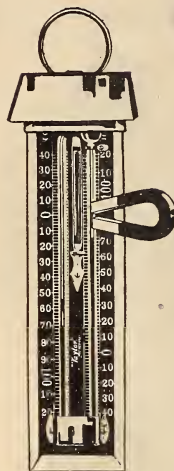
10-inch, each, 60c; $\frac{1}{2}$ doz., \$3.00; doz., \$5.00.
12-inch, each, 75c; $\frac{1}{2}$ doz., \$4.00; doz., \$7.50.
14-inch, each, 90c; $\frac{1}{2}$ doz., \$5.00; doz., \$9.50.
16-inch, each, \$1.20; $\frac{1}{2}$ doz., \$6.50; doz., \$12.50.
Mailing weight, each, 10 and 12 inch, 2 lbs.;
14 and 16 inch, 3 lbs.; add postage.

INCUBATORS—Cyphers

We are again privileged to offer to our customers and the public a complete line of Cyphers Incubators and Brooders. These have made such enviable records in the past that they are becoming more popular year by year, and those interested in Incubators are placing more and more confidence in them because of their reliability and dependability. Every additional year they are on the market and every time one of them is used, confirm the well-nigh universal judgment, that Cyphers Incubators and Brooders are the standard of excellence and that they occupy a place not occupied by any other Incubators and Brooders.

Standard Cyphers Incubators

These are machines that for nineteen years and more have been recognized as the "Standard hatchers of the world." Tens upon tens of thousands of them have been sold and are in successful use in every civilized country on the globe. They are used by more Government Experiment Stations, more large, practical poultry plants, on more successful duck and egg farms, and by a larger number of foremost poultry breeders than all other makes combined. They are the last word to date in incubator building, not a penny being spared anywhere in their construction to make sure of their doing satisfactory work in all climates, under widely different conditions, in the hands of all sorts of people. They are built to hatch and to last. With ordinary care they should last an ordinary lifetime. Every Standard Cyphers Incubator is guaranteed by the manufacturers to do first-class work in the hands of every purchaser



5452

GREENHOUSE THERMOMETERS



5400



5420

No. 5452—Standard grade, self-registering, 10 inches, black oxidized brass scales, white filled figures, black japanned tin case. \$4.00; postage 10c extra.

No. 5400—Standard Grade, 10 inches, black japanned, heavy tin case. Spirit. \$1.75; postpaid, \$1.85.

No. 5420—Selected Grade, 8 inches, black, japanned tin case. Spirit. \$1.00; postpaid, \$1.10.

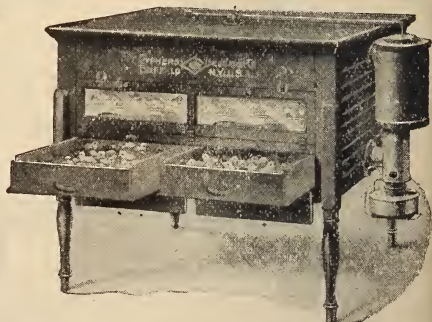
Hot Bed Thermometers



No. 5981—Standard Grade, 16 inches, wood frame with handle, brass pointed ferrule, brass oxidized scales, white filled figures and graduations. \$2.50; add 10c for postage.



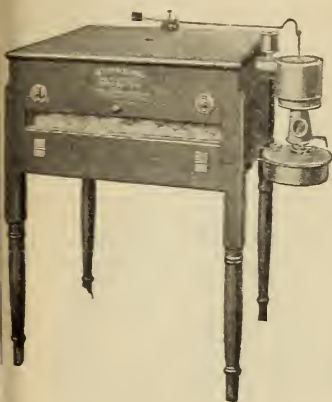
No. 5982—Medium Grade, 16 inches, wood frame with handle, brass pointed ferrule, glass cylinder, hand written paper scale. \$1.50; add 10c for postage.



who will give it a fair trial. 70 eggs, \$17.50.
244 eggs, \$40.00; 390-400 eggs, \$47.00.

Columbia Hot-Air Incubators

Are built to meet the wide-spread demand for large capacity lamp-heated machine that can be sold at surprisingly low prices and yet be guaranteed to do high-class work. Have wooden cases, attractively finished in dark green, with brass trimmings and double walls. Seamless-bottom lamp bowls, best quality brass burners, zinc and steel Standard Cyphers toggle-joint thermostat and same regulating equipment as used on higher priced machines. Fume-proof, forced draft heater, asbestos covered and metal banded. Automatic in ventilation and embodies diffusive principles. Roomy chick nursery under egg trays. Made in two sizes: 140 eggs, \$18.50; 250 eggs, \$25.00.



Superior Hot-Water Incubators

These machines are exactly what the name says. They are heated by hot water, instead of hot air, and are "superior" in every detail. The water boiler and tank (tubular) are of heavy weight copper. Lamp has seamless bowl; burner is best on market. Incubator case is of wood, attractively finished in golden brown, with brass trimmings and has double walls, with air space insulation. Are equipped with Standard Cyphers zinc and steel toggle-joint thermostat and knife-edge regulator. Have forced water circulation and are automatic in ventilation. Roomy chick nurseries. 130 eggs, \$20.00



Inferior Seeds are dear at any price. High grade Seeds are cheap at any price. Our Seeds are always high grade.

The Peerless Automatic Incubator

Small enough to give the greatest efficiency in hatching. Large enough to give the greatest economy in operation. Cheap enough so that any man or woman who wants to make money in poultry can afford it.

HEAT, MOISTURE, VENTILATION, ALL AUTOMATIC.

We all know the important connection between heat, moisture and ventilation in an incubator. To preserve an even and constant balance between these three vital features has been the great problem among incubator manufacturers.

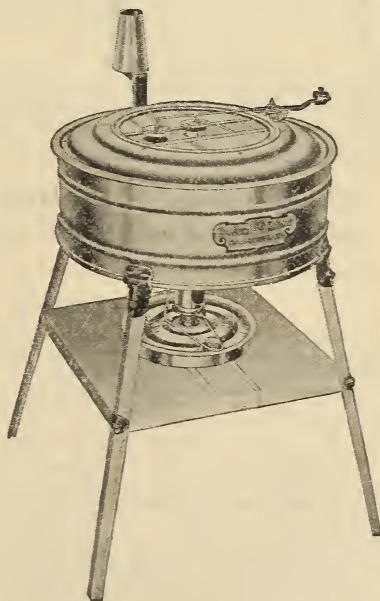
The heating system is a masterpiece of simplicity. The heated air is conveyed upwards through the egg chamber to the heat distributor. The heated air from the lamp never enters the egg chamber directly.

Moisture is supplied by an open water jacket which surrounds the heat flue. Thus center heat is eliminated and it is an absolute fact that the inside of the egg chamber is not a fraction of a degree warmer at the heat flue than at the center or outer edge.

The action of the regulator is governed by the expansion and contraction of a sensitive double reffer thermostat. There is only one adjustment—just simply turn the single adjusting screw and you set the thermostat.

The entire egg chamber is reached by simply turning off the top and placing it on the holder provided for it.

Made entirely of metal with the exception of the glass top, through which the entire interior



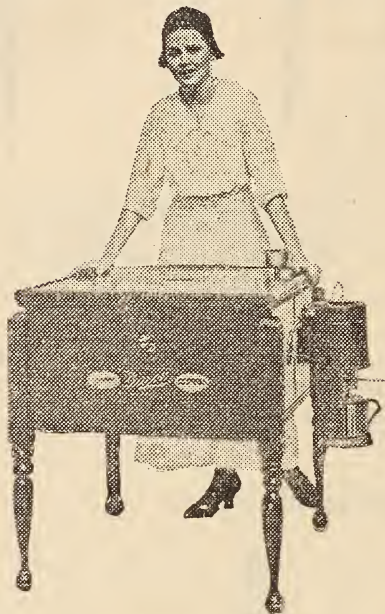
of the machine can be inspected without opening it. The thermometer rests just above the eggs and is plainly visible. Capacity, 66 eggs.

Price, \$8.50. Will not go by mail.

Queen Hot Water Incubators

During the past years hot air heated incubators have been the leaders. At the present time some of the leading poultry men have turned to hot water heated incubators, and to meet this growing demand we have put in stock the well-known Queen Hot Water Incubators

Queen Chicks Live and Grow



Queen Incubators are famous the country over for big hatches of strong, healthy chicks that live and grow. The Queen is accurately regu-

lated, keeping the temperature just right for the hatching chick. No hot and cold changes to weaken the chick's system. The Queen is properly insulated—two layers of wood and one of corrugated strawboard, with dead air space. This also helps to maintain an even temperature for the entire hatching period. Both Queen walls are built of genuine California Redwood, which is unusual in these days of imitation and cheap substitution.

Redwood does not absorb the odor from the hatching eggs. Cheaper woods, and pasteboard lining in iron and tin machines, retain the odors, to weaken and kill the hatching chick.

The radiator and boiler of the Queen heating system is made of copper (not copperized tin) that has been rolled into sheets without heating, which gives added life, strength and ability to stand more wear and tear than the ordinary sheet copper, and is placed close to the inner top of the incubator. This form of placing allows the heat to reflect from the floor of the egg chamber and to more evenly affect the germ which always rises to the upper surface of the yolk.

Sizes and prices:

- No. 1—75-egg size, \$20.00.
- No. 2—125-egg size, \$28.00.
- No. 3—165-egg size, \$34.00.
- No. 4—250-egg size, \$45.00.
- No. 5—375-egg size, \$53.00.

In addition to those listed above, the Queen Incubators are also made in the following sizes and sell F. O. B. Spokane at prices quoted:

- 500-egg size, \$85.00.
- 750-egg size, \$115.00.
- 1000-egg size, \$170.00.
- 1500-egg size, \$230.00.
- 2000-egg size, \$300.00.

We do not carry these in stock, but we can secure them in a few days from the company's warehouse, located on the coast.

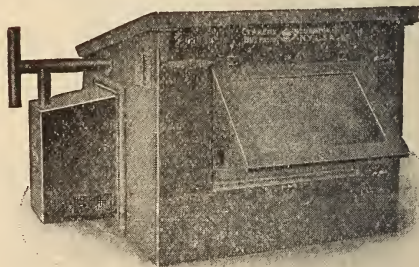
The best proof of the high quality of our Seeds, are increased demands and additional customers.

Style A Outdoor Brooder

The Style A Outdoor Brooder is recommended for use of poultry raisers who feel that they do not wish to invest in the larger sized and more costly three apartment outdoor brooders. The Style "A" is equipped with the Cyphers Fire-Proof Brooder Heater and Standard Adaptable Hover. Top heat is used exclusively, thus giving the chicks free use of all space underneath the hover. The Adaptable Hover is self-regulating and self-ventilating, and provides a constant supply of fresh, warmed, pure air beneath the hover for the little chicks.

The double frame door of this brooder is of great convenience to the operator—the sill being on the level of the floor makes cleaning easy—while ample ventilation is secured, at the same time preventing rats, cats and other chick enemies from gaining access to the brooder. The outer door, hooked up part way, allows ventilation and prevents rain beating in.

Dimensions: Floor space, 32x22 inches; height, 32 inches in front, 24 inches at rear. Capacity 75 newly hatched chicks. Price, \$17.50.

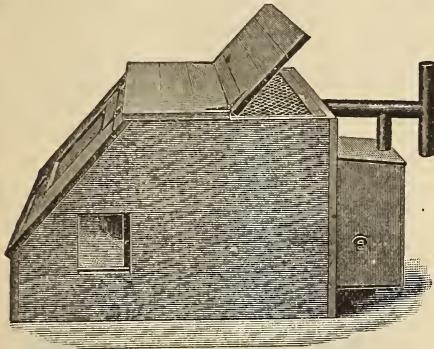


Style B Outdoor Brooder

The Style B Outdoor Brooder has all the favorable features found in the Style A, and in addition has a large exercising apartment, thus securing twice the floor space.

The Style B Brooder has the exercising apartment separated from the hover apartment by a partition. A small chick door in each end of this partition does away with four corners. Each door is covered with a slitted felt curtain, thus keeping drafts out of the hover apartment, while for night use a wooden door will close the opening.

Dimensions: Floor space, 32x62 inches, 32 inches in front, 24 inches in rear. Capacity, one hundred newly hatched chicks. Price, \$22.50.



Cyphers Style D Indoor Brooder

This Insurable Indoor Brooder is practically the same in all respects as the Style A outdoor type, except that the upper half is more convenient in shape and construction for indoor use. This type of brooder, equipped complete with the Standard Cyphers Adaptable Hover, is for use in any kind of building, including rooms in dwellings, or suitable places in barns, sheds, or poultry houses. They furnish a comfortable lodging place for early hatched chicks direct from the incubator.

Dimensions of Cyphers Style D Indoor Brooder: Floor space, 32x32 inches; height, 32 inches in front, 24 inches at rear. Capacity, seventy-five newly hatched chicks. Price, \$12.50.

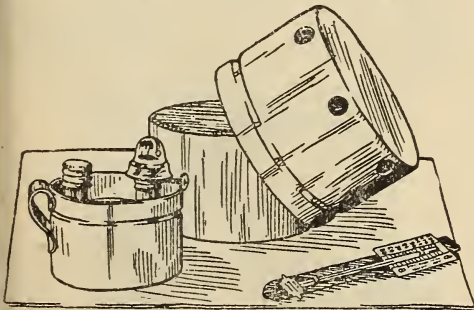
Eocene Oil

Best for incubators and brooders. Write for prices.

Cyphers Style D Indoor Brooder

Common Sense Brooder Fixtures

To those who wish to make their own brooders, we highly recommend the "Common Sense" Brooder Fixtures. These fixtures include an upper and lower drum, Inland Safety Lamp and Thermometer. The construction of the brooder is simple and the air circulation perfect. For outdoor use the walls should be double and the roof included and covered with roofing.

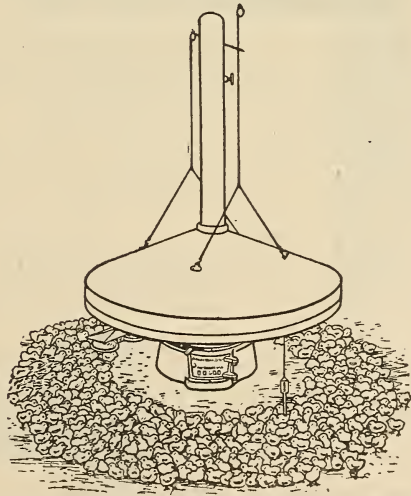


Top Removed, Showing Location of Hover and Heat Retainer

Manner of Construction—First, put in a tight floor 9½ inches from the bottom of brooder. Then mark and saw out size of larger drum on this floor (using drum as pattern), 12 inches from center of side of brooder to center of drum. Secure drum in place, then nail one-inch cleats two feet square under and around the drum, cutting out a two-inch hole from cleat and side of brooder to allow air circulation. Nail the lower drum up on these cleats. Bore sufficient holes through two sides of brooder, under this floor, to carry off fumes and furnish air for

lamp. For the hover nail thin boards together, making it two feet square. Around this tack oilcloth wide enough to reach floor when hover rests on drum. Set the lamp under center of drum. Price, \$4.50.

HOVERS Cyphers Coal Burning Colony Hover



The latest development in the brooding of chicks. Will brood from 300 to 1,000 chicks in

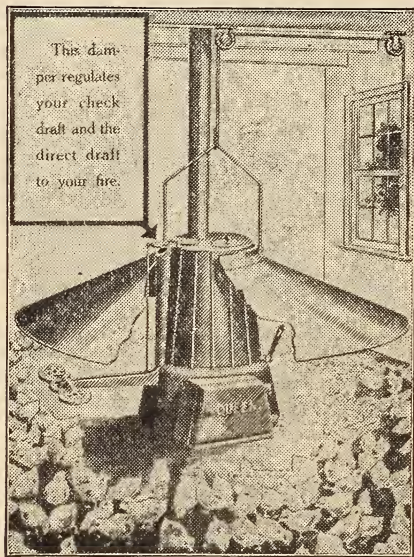
one flock, thereby reducing to the lowest point the time, labor, and cost of raising fowls.

THIS HOVER COMBINES THE BEST that twenty years of poultry experience, coupled with more than fifty years of stove-building experience have accomplished to date. It is remarkable for its simplicity of design and ruggedness of construction. The fire pot is a one-piece, heavy-weight casting of ample capacity. The ash pit and heater base are also cast in one piece—therefore is fire-tight. Automatic regulator is provided, insures continuous, reliable heat for the growing chicks.

There is nothing about the entire device to give way or break easily, or to get out of order. It is as easy to operate as a kitchen range and can be relied upon to do the work for which it is intended.

Prices—With small Heater and 42-inch dome, capacity 300 to 600 chicks, \$25.00.

QUEEN BROODER STOVES



The Queen Brooder Stove is just what is needed to keep the house comfortable for the early chicks. It is the only Brooder Stove in which both fire and amount of heat are automatically controlled by one thermostat, and one connecting rod.

Damper indicated by arrow regulates the check draft and the direct draft to the fire. Gas controlled above deflector. No gas can escape below to injure chicks. Hover is collapsible, made in sections, and easy to put together and take apart. Holds enough coal to last 40 to 48 hours.

The Queen Is the Only Brooder Stove With Automatic Control of Both Check and Draft.

The Queen Colony Brooder Stove is made of highest quality iron castings that will wear and last indefinitely.

DRAFTS—There are no drafts on the smoke pipe of the Queen. The check rests on top of the stove and opens outward when fire is too warm, thus giving a gentle inflow of air to retard the heat. While the opening of the draft to increase the fire is located at the top of the stove, it opens into the fire at the base through an opening extending down the side to the bottom.

GRATE—Next to a good draft through the chimney, the principal secret of a good fire in any stove is a good grate that will free the

fire from ashes properly and prevent clinkers. The grate in the Queen stove is the rocker type and strikes the fire at four points. This is far superior to any draw center or shaker grate. Because it cleans the fire thoroughly, and by striking at four points will break up and remove all clinkers.

HOVER—The hover on Queen Stoves is collapsible and made of four pieces of galvanized iron. This hover comes knocked down, with holes punched and stove bolts attached, ready for putting together. By being collapsible, it enables you to save room when storing, and lessens the danger of damage, when not in use.

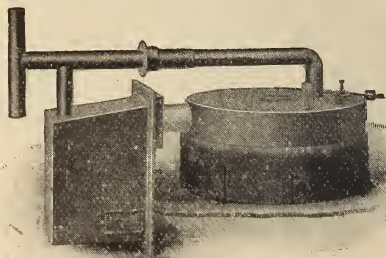
FUEL—The Queen burns any kind of fuel with equally satisfactory results. We recommend chestnut sizes in all kinds of fuel and hard or soft coal, coke, charcoal, or briquettes burn equally well.

GAS—There is no possibility of gas escaping below the hover to harm the chicks, because all drafts are located above the hover and are so arranged that all gas and smoke must go out through the smoke pipe.

No. 1—300 to 500 chick size, \$21.00.

No. 2—600 to 1000 chick size, \$25.00.

No pipes or elbows furnished with stoves. Pipes and elbows—50c each. Order as many lengths of pipe as you need, also elbow if needed, and add to price of stove.



The Cyphers Adaptable Hover is self-ventilating and self-regulating. It supplies a continuous flow of fresh, pure, warmed air under the hover, and at the same time maintains a steady, uniform heat. It is "adaptable" to use in colony coops, in portable houses, in home-made brooder coops, such as goods boxes, piano boxes, and organ cases, as well as in large brooding houses. It is constructed entirely of non-combustible material. Capacity, 75 newly hatched chicks. Price, \$7.50.



INTERNATIONAL PORTABLE—The great, distinctive features of the Sanitary Hover are

that it is warmest at the curtain, and that the center, being occupied by the lamp holder, is not available for the chicks to crowd in.

The International Sanitary Hover is the one perfect hover. The heat in it is not conducted through pipes and discharged at the center, but radiates downward from a ceiling warmest at the curtain.

Chicks hovered under the Sanitary Hover not only have no incentive to crowd to the center, but really have no center to crowd to.

To get at the lamp, just lift it out. To move the hover, just pick it up. To set up the hover, just set it down. Price, \$11.00.

EXTRAS FOR CYPHERS INCUBATORS

Arms, Wooden

For Nos. 0, 1, 2 or 3. Price, 25c; postpaid, 35c. These arms are all forwarded extra long; customers cut to fit machine.

Connecting Rods

For No. 0. Price, 35c; postpaid, 40c.
For Nos. 1, 2 or 3. Price, 40c; postpaid, 45c.
Discs (tin) and wire, 15c each; postpaid, 20c.
State size of incubator.

Egg Trays, Pedigree

Pedigree Trays are in demand by poultry raisers who use trap nests of various kinds for special breeding purposes. They are a valuable aid to systematic, scientific poultry breeding. By their use the eggs placed in a No. 0 or No. 1 Standard Cyphers Incubator can be kept in four separate lots; also the chicks that hatch therefrom, and the eggs in a No. 2 or No. 3 Standard Cyphers can be kept in eight separate lots, also the chicks that hatch therefrom.

Price, each, for No. 1.....\$3.25
Price, each, for No. 2.....3.50
Price, each, for No. 3.....3.75

Felts

For No. 1, each.....\$0.50
For No. 2, pair......75
For No. 3, pair.....1.00

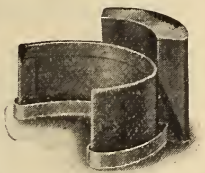
Postpaid, 10c additional.

Flame Reducers

Each, 30c; postpaid, 35c.
State size of machine.

Moisture Device

Cyphers Incubators are known the world over as non-moisture machines, where the surrounding atmosphere is in its normal condition. There are, however, exceptional conditions, existing in arid districts and in high altitudes of mountainous regions. The device is placed on the air chamber of the heater. Price, \$1.75; postpaid, \$1.85.

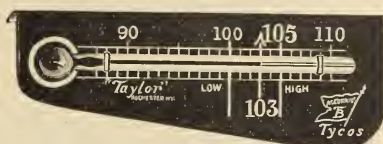


Thermostats

For No. 0.....\$1.65
For Nos. 1, 2 or 3.....2.15

Add 10c for postage.

Thermometers



The best incubators and brooders manufactured are worthless unless the thermometers therein are correct. The thermometers here listed are guaranteed by the manufacturers to be thoroughly and expertly tested before they are offered to the public. Incubator Thermometers, 90c; postpaid, \$1.00.

"Tycos" Certified Incubator Thermometers

With scale etched on the glass tube, so that, should the tube from any cause work loose on the mounting, the efficiency of the thermometer would not in any manner be diminished. Made in mercury tube only. Each, \$1.25; postpaid, \$1.35.

We pack thermometers and all glassware in as safe a manner as possible, but will not be responsible for their safe delivery, owing to the great risk of breakage.

EXTRAS FOR CYPHERS BROODERS

Mirrors

Each10c

Thermometers

Each, 75c; postpaid, 85c.

EXTRAS FOR CYPHERS HOVERS

Arms, Wire

Each, 50c; postpaid, 60.

Connecting Rod

Each, 25c; postpaid, 30c.

Disc and Wire

Each, 15c; postpaid, 20c.

Felts

Each, 75c; postpaid, 85c.

Thermometers for adaptable and portable hovers.

Each, 75c; postpaid, 85c.



X-Ray Egg Tester

X-Ray Egg Tester is made with a central cyl-



inder, $5\frac{1}{4}$ inches high, with an outside diameter of $2\frac{1}{2}$ inches at the base and $2\frac{1}{2}$ inches at the top. It is designed for use on an ordinary hand lamp. In a dark room the light will be strong enough to penetrate the shell and illuminate the interior of the egg. Price, 25c; postpaid, 30c.

LAMPS

Lamp complete, with burner and wick for No. 0 Cyphers Incubator, \$1.50; postpaid, \$1.60.

Lamp complete, with burner and wick, for Nos. 1, 2 and 3, for Cyphers Incubator, \$1.75; postpaid, \$1.85.

Incubator Lamp, complete with burner and wick, No. 3 burner, $3\frac{1}{4}$ -inch diameter, $1\frac{1}{2}$ -inch wick. Price, \$1.75; postpaid, \$1.85.

Incubator Lamp, complete with burner and wick, No. 2 burner $2\frac{1}{2}$ inches in diameter, 1-inch wick. Price, \$1.50; postpaid, \$1.60.

Brooder Lamp, complete with burner and wick, No. 3 burner, $3\frac{1}{4}$ inches in diameter, $1\frac{1}{2}$ -inch wick, chimney $3\frac{1}{4}$ inches by 7 inches. Price, \$1.75; postpaid, \$1.85.

Brooder Lamp, complete with burner and wick, No. 2 burner $2\frac{1}{2}$ inches in diameter, 1-inch wick, chimney $2\frac{1}{2} \times 6$ inches. Price, \$1.50; postpaid, \$1.60.

Brooder Lamp, complete with burner and wick, No. 32 burner, chimney $3\frac{1}{4} \times 3\frac{1}{4}$ inches, wick 1 inch. Price, \$1.85; postpaid, \$1.95.

Chimneys for No. 2 burners. Price, 25c; postpaid, 30c.

Chimneys for No. 3 burners. Price, 30c; postpaid, 35c.

Chimney, $3\frac{1}{4} \times 3\frac{1}{4}$ inches, for No. 32 burner. Price, 30c; postpaid, 35c.

The Inland Safety Brooder Lamp requires no chimney; never smokes, and burns a steady flame. The air fingers carry fresh air direct to the flame. This gives perfect combustion and more heat for a given amount of oil than with any other burner. Top of lamp is made to hold water, and it is essential to keep water there owing to heat being reflected back upon the lamp. Weight, 2 lbs. Price, complete with burner and wick, \$1.75; postpaid, \$1.85.



Inland Safety
Brooder Lamp

Lamp Bowls

For Incubator or Brooder to take No. 3 burner. Price, \$1.25; postpaid, \$1.35.

For Incubator or Brooder, to take No. 1 burner. Price, \$1.15; postpaid, \$1.25.

Lamp Burners

No. 2 for No. 0 and No. 1 Cyphers Incubators. Price, 40c; postpaid, 45c.

No. 3 for No. 2 and No. 3 Cyphers Incubators. Price, 50c; postpaid, 55c.

No. 1 Zenith, no chimney, $\frac{3}{4}$ inch wick. Price, 50c; postpaid, 55c.

No. 2 Zenith, no chimney, 1 inch wick. Price, 55c; postpaid, 60c.

No. 32, $3\frac{1}{4}$ inch chimney, 1 inch wick. Price, 60c; postpaid, 65c.

Lamp Chimneys

Chimneys for No. 2 burners. Price, 30c; postpaid, 35c.

Chimneys for No. 3 burners. Price, 35c; postpaid, 40c.

Chimney, $3\frac{1}{4} \times 3\frac{1}{4}$ inches, for No. 32 burner. Price, 35c; postpaid, 40c.

Lamp Collars

For No. 3 and No. 2 burners, 10c each.

Lamp Wicks

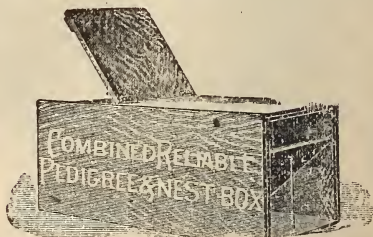
No. 1, 20c per doz.; No. 2, 20c per doz.; No. 3, 25c per doz.; all postpaid.

"Tyco's" Incubator Hygrometer



Millions of chicks die in the shell every year for the want of proper moisture conditions. The "Tyco's" Incubator Hygrometer is not a regulator of moisture, but is an indicator of conditions, so that if not correct, they may be made so. Each, \$1.75; postpaid, \$1.85. Hygrometer Wicks, each, 15c.

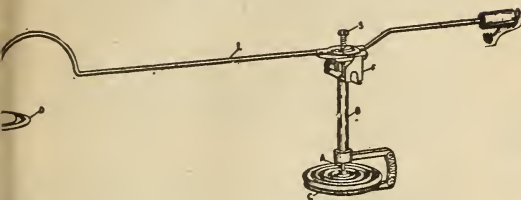
The Reliable Pedigree Nest Box



The best and most successful breeders in the country are at present following the pedigree

plan and using automatic nest boxes of some kind. They can be used either for pedigreering the stock or as an ordinary nest box. Weight, 3 lbs. Price, \$3.00; add postage.

Regulators



In this Regulator the wafer is inverted and as it expands it acts through the short lever beneath it on the connecting rod, and the down pull of the connecting rod so moves the top lever as to lift the damper. Accurate adjustment is secured through the adjustment nut and the upper end of the connecting rod. Weight, 2 oz., Price, \$2.00; add postage.

Wafer Thermostat



The Wafer Thermostat is made of two round concave discs, sealed together at the outer edge. The

space between them is filled with a volatile liquid which is very sensitive to changes in temperature. Price, postpaid, 60c.

Champion Leg Band



The oldest and most popular band on the market. This band is made in one piece in two sizes, adjustable to fit any fowl. They will stay where you put them. Held by double lock, it is impossible for them to lose off. Made of aluminum in two sizes, large size for Asiatic fowls and turkeys; small size for Plymouth Rocks and all smaller breeds. Postpaid, 12, 15c; 5, 30c; 50, 50c; 100, 80c.

Petty's Poultry Punch



Latest, most convenient Poultry Punch; will not clog. Thoroughly practical. Postpaid, 25c.

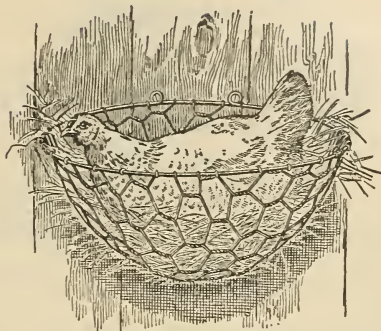
SAFE EDGE KILLING KNIFE

Exactly same as French Killer except cut on one side only. 50c, postpaid.

Pilling Angular Killing Knife

By simply turning the wrist the jugular vein and spiral cord are cut, thereby bleeding the fowl, allowing the feathers to be removed without using water. 50c, postpaid.

Wire Nests



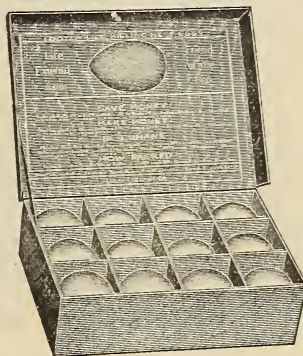
These nests are strongly made from heavy japanned steel wire. They are intended to be fastened to the wall with screws or screw hooks. There is no room on them for lodgment of lice or vermin of any kind; they are easy to keep clean and are far superior to wooden boxes.

Standard Size and Weight—Size, 13 inches in diameter; 7 inches deep; 1½-inch mesh; made of No. 19 wire. Each, 15c; ½ doz., 85c; doz., \$1.50. Weight per ½ doz., 3 lbs.

Extra Large and Heavy—Size, 15 inches in diameter; 8 inches deep; 1½-inch mesh; made of No. 17 wire. Each, 20c; ½ doz., \$1.10; doz., \$2.00. Weight per ½ doz., 4 lbs.

Add postage to all baskets.

Nest Eggs

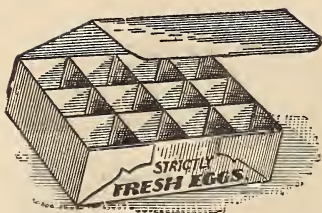


Medicated—Should be used the year around. **Directions for Use**—Don't expect one egg to rid your poultry and poultry house of lice. To realize the best results keep an egg in each nest for laying hens; in each coop for brooding hens and chicks, and enough to change about under setting hens. Weight, per doz., 3 lbs. Each, 5c; doz., 60c; add postage.

Lime—The popularity of the Lime Nest Egg has spread across the country like a great storm wave sweeping the continent. Not only the poultry fancier, but the every day farmer appreciates its merits and superiority over the ordinary porcelain nest eggs. They look like a real egg. The porcelain egg becomes so cold in winter that a hen will not sit upon it but scratch it out of the nest. Weight, lbs. per doz. 3 for 10c; doz., 30c; add postage.

Porcelain—Weight per doz., 2 lbs. Price, doz., 30c; add postage.

EGG BOXES



Paper—Intended for use in delivering eggs to private families. If you have a select egg trade you should use this box.

Square—Doz., 20c; package of 125, 1.50; 500, \$5.00; 1,000, \$9.00; add postage. Weight of 125, 15 lbs.

Long—Doz., 25c; package of 125, \$1.75; 500, \$6.00; 1,000, \$11.00; add postage. Weight of 125, 15 lbs.

CLOVER LEAF EGG CARRIER

The construction is simplicity itself. The eggs do not come in contact with the outer box, having a cushion on all sides, thus insuring safe transportation to a customer.

Price, 15-egg size, 25c each, 6 for \$1.25; doz., \$2.25.

Price, 25-egg size, 25c each, 6 for \$1.50; doz., \$2.75.

Price, 30-egg size, 30c each, 6 for \$1.75; doz., \$3.25.

Price, 50-egg size, 40c each; 6 for \$2.35; doz., \$4.50.

Price, 12-egg size, duck, 25c each; 6 for \$1.25; doz., \$2.25.

Price, 12-egg size, turkey, 25c each, 6 for \$1.25; doz., \$2.25.

Price, 9-egg size, goose, 25c each, 6 for \$1.25; doz., \$2.25.

Parcel Post egg boxes, 20c each, 6 for \$1.15; doz., \$2.25. Capacity, 12 eggs.

Mailing weight of all egg boxes, 2 lbs. each; add postage.

ANDERSON—Made of heavy corrugated paper. These boxes are light, but very strong, being firmly braced, and will stand the weight of several hundred pounds without crushing. 30-egg size, 25c each, 6 for \$1.25; doz., \$2.25.

Mailing weight, 2 lbs. each; add postage.

Egg Cases

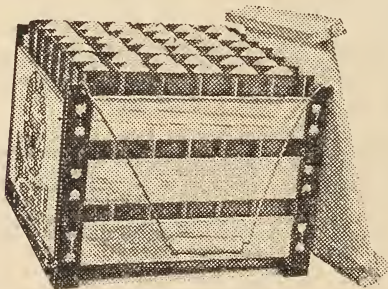
30-dozen case, with pasteboard fillers, 60c.

Pasteboard fillers for 30-dozen case, 30c.

Pasteboard fillers, per case (for 15 30-dozen cases), \$2.50.

Cases, K. D., each, 35c; 1/2 doz., \$1.90; doz., \$3.50.

The "Steelbound" Egg Carrier



Frame is made of the best quality of sheet steel. Wood is fastened to steel by a patented

process, making a light, rigid and practically indestructible carrier. Cover rests on steel frame and cannot be pressed down on contents of crate; it also fits into corners so as to brace the frame in all directions. Handles are made of steel spring wire, are fastened securely to steel frame so that they cannot work loose or come off; they lock together over cover and cover cannot be removed until handles are unlocked.

Crate holds twelve dozen eggs. Size twelve and one-half inches square by ten and one-half inches long. Weight, including fillers only, less than six pounds. Weight, filled with eggs of ordinary size, about twenty-two pounds. Price 75c; add postage.

Shipping Boxes for Day-Old Chicks

These shipping boxes are well made of highest corrugated paper, which is very strong and durable. The construction of these boxes is such as to afford the greatest strength and stiffness, without unnecessary bulk of weight.

25-Chick Size—Each, 30c; 1/2 doz., \$1.50; doz., \$2.75; bundle of 25, \$5.50.

50-Chick Size—Each, 35c; 1/2 doz., \$2.00; doz., \$3.75; bundle of 25, \$7.50.

100-Chick Size—Each, 55c; 1/2 doz., \$3.00; doz., \$5.75; bundle of 25, \$11.00.

Weight per dozen boxes, 25 size, 7 lbs.; 50 size, 15 lbs.; 100 size, 33 lbs. Add postage.

Shipping Coops

INLAND—All wood, neat, very light, but strong. Poultry raisers selling poultry at fancy prices should always use these coops.

No. 1—10x18x18, 40c; 1/2 doz., \$2.00; doz., \$3.75.

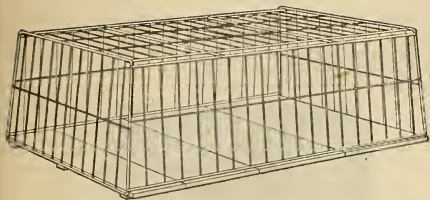
No. 2—12x24x20, 50c; 1/2 doz., \$2.75; doz., \$5.00.

No. 3—20x24x20, 60c; 1/2 doz., \$3.25; doz., \$6.00.

Clover Leaf Steel Shipping Coop



Actual Weight on Coop, 1194 Pounds.



This steel coop will outlast three wood crates and will save its cost each season in repairs and transportation charges.

It is made of galvanized steel bars and wire, and will not rust.

It is sanitary, as there are no holes or crevices in which vermin can breed.

It has a narrow mesh on top, which eliminates the possibility of the poultry poking their heads through and being killed.

Weighs but 24 pounds, and never gets heavier with moisture.

It is built on a taper, so that the coops will slide into each other, after removing the bottom. This feature is a great advantage, as the coop is not weakened by making it collapsible. The bottoms are easily and quickly detached. Size, 27x41x13 inches high. Price, \$3.50.

Size, 27x41x20 inches high, \$4.00.

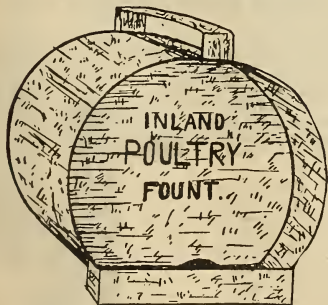
Inland Feed and Shell Box



The Inland Sanitary Feed and Shell Boxes work a material saving in grit, shell, bone, charcoal or poultry feeds.

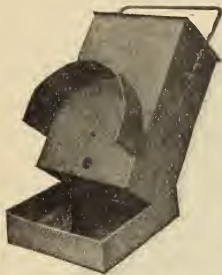
They are thoroughly practical, self-feeding, made of heavy galvanized iron. They are provided with a cover or lid, which protects the contents, and being placed at an angle furnishes a slanting top, preventing the fowls from roosting on the top of the box. Price, 2 compartment, \$1.75; 3 compartment, \$1.75; wgt., 3 lbs. Add postage.

Drinking Fountains



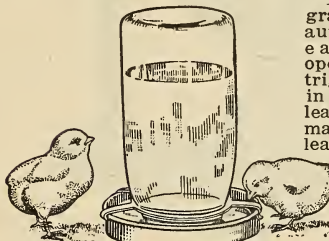
INLAND POULTRY FOUNTAIN — The back is flattened so that it can be hung on the wall or against an upright post or board at any angle. As the bottom is also flat, it can be set upon the ground or on a raised board. Price, 1 gal., \$1.25; 2 gal., \$1.50. Weight, 1 gal., 3 lbs. Weight, 2 gal., 4 lbs. Add postage.

Drop Bottom Founts



28-gauge galvanized steel. Easiest thing in the world to open and clean. Clasp by which the bottom is fastened fits over the small hole under the hood, preventing slopping of water when the fount is handled. Solid brass hinge rod—no rust. Gal., \$1.25; weight, 3 pounds. 2 gal., \$1.50; weight, 4 lbs.; add postage.

Automatic Fountain and Feeder

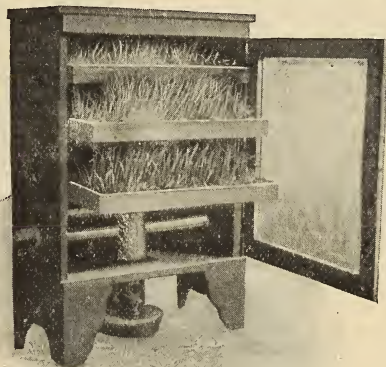


Feeds water, grain, grit, etc., automatically. Is easy to fill and operate. Just lift trigger, as shown in cut, which releases pan, clip remaining on jar, leaving pan without any obstruction, affording easy cleaning. Thus a sanitary fountain.

Made to fit any half gallon, quart or pint Mason jar. We do not furnish jars.

Each, 20c; 3 for 50c; 1/2 doz., 90c; doz., \$1.75. Weight, per doz., 4 lbs.; add postage.

Reliable Grain and Oat Sprouter



Poultry needs green feed in one form or another. All experiments by individuals and agricultural colleges have found that oat sprouts are the best green feed that can be obtained for poultry.

You want the eggs when the eggs sell at the highest price. Green feed makes your hens lay.

The Reliable Grain and Oat Sprouter has an automatic sprinkler, which furnishes moisture.

Has a Moisture Receptacle, which catches the surplus drip.

Has circulation of warm air which passes all around and over each tray.

Has a regular oil heater to furnish sufficient warm air in coldest weather.

Is made of galvanized iron with large glass front.

Three trays will furnish sprouts for 50 to 75 fowls. Price, \$12.50.

Six trays will furnish sprouts for 100 to 150 fowls. Price, \$16.00.

Twelve trays will furnish sprouts for 200 to 300 fowls. Price, \$27.50.

Banner Root Cutters



No. 7

These excellent machines are so low in price that every farmer, stock raiser or poultry man should have one, as roots are the cheapest green feed for stock and poultry.

The Banner is substantially made of first-class material.

It cuts fast and is easy running. Leaves the feed in fine ribbon-like strips that make choking impossible. Fowls large or small can safely eat the feed. The knives are adjustable and made of the very best of steel. An iron grate in bottom of hopper lets dirt and gravel escape before reaching the knives. In this cutter we offer the poultrymen a low priced, high grade, nicely finished and mechanically constructed machine, and feel that anyone who desires to feed roots and vegetables to their flocks can well afford to own one. Two to five minutes will cut enough feed for a large flock of fowls. Price, \$6.50.

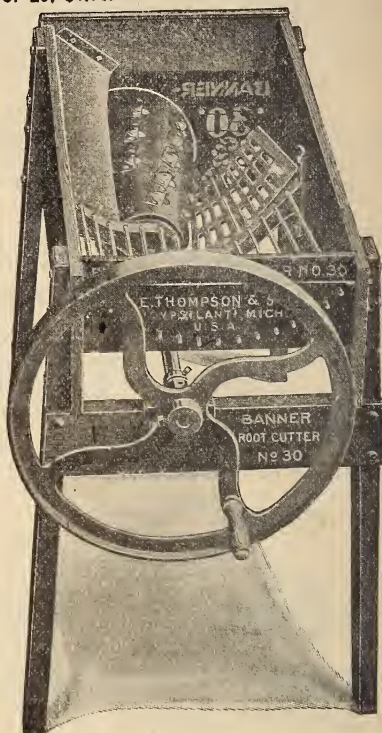
Weight, 50 lbs. Extra knives, 35c each.



No. 20

No. 20 is made for hand power and is the kind and style that meets with the largest sale, because most of the farmers who feed roots to stock want a machine that is run by hand. It has a capacity of 30 to 50 bushels per hour.

It is well built, nicely finished, runs easily, feeds itself, separates the dirt from the cut feed, and is supplied with the best steel knives. Price, \$14.50; weight, 120 lbs. Extra knives, per set of 20, \$1.75.



No. 30

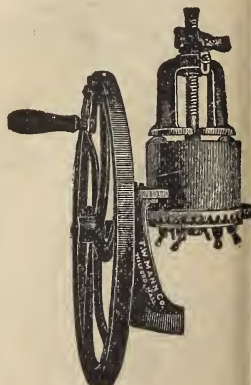
A glance at the cut of No. 30 shows the large capacity of the hopper, 39 inches long, 18 inches wide and 18 inches deep at the lower or cutting end. The long drum with 30 knives attached. The gravity slant of the inside of the hopper. The open bottom with iron rods and open cutting grate allows dirt to escape without mixing with the cut feed.

Capacity, $1\frac{1}{2}$ to 2 bushels per minute. Price \$24.00. Weight, 190 lbs.

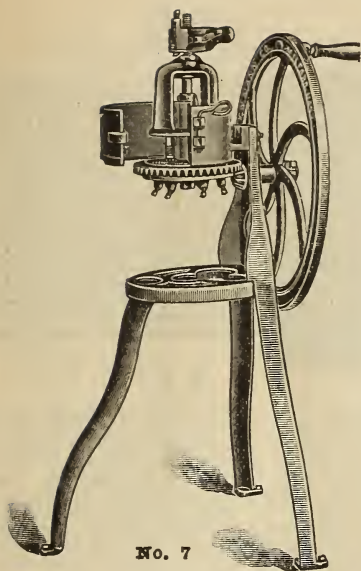
Mann's Green Bone Cutter

MANN'S NO. 5 B—Has 4 knives, large cylinder, and has the latest patent (automatic governing spring feed), which makes it one of the best. Price, \$12.00.

NO. 5 B. M.—Mounted on iron stand, no expense to set it up. Place for man to catch the bone. Patented automatic governing spring feed. Cylinder, 6 inches diameter, 4 inches deep. Cutter plate has four knives. Will cut faster and easier than other types. Price, \$16.00.



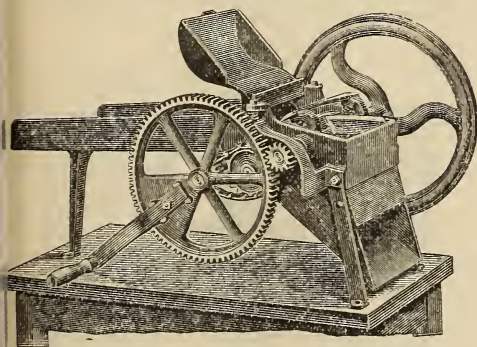
No. 5 B



No. 7

MANN'S NO. 7—The new No. 7 is mounted on strong iron stand, and has patent automatic governing spring feed. Large, open-hinged cylinder, giving instant access to all working parts; has six knives, gear guard, anti-clog device, heavy balance wheel. Price, \$18.00.

"New Model" Clover Cutter



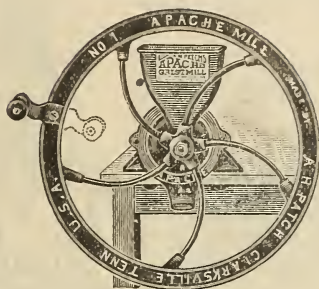
The "New Model" Clover Cutter is designed for cutting either green or dry, such growths as clover, alfalfa, vegetable tops, etc. These growths are the cheapest feed that can be secured.

The "New Model" is made only of iron and steel, from entirely new patterns. It is a strong feeder, has large capacity, runs unusually easy and will do perfect work indefinitely. Has removable and adjustable steel knives.

Price, with four 7-inch knives, \$16.00.

Price, with extended shaft and pulley for power, \$18.00.

Apache Mill



Grinding plates can be taken out easily for cleaning or replacing.

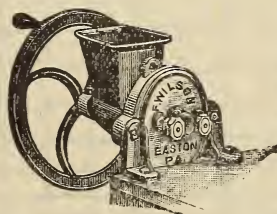
The handle can be set in two positions as shown, making a longer or shorter leverage as desired.

The light steel spokes make it possible to have practically all the weight of the fly wheel in the outer rim.

The Apache grinds all dry grains such as corn, wheat, rye, rice, coffee, spices, etc. Makes corn meal, hominy, chops, breakfast foods, etc. It will grind a quart of table meal in two minutes.

Large hopper, ball bearing. Weight, 40 lbs. Price, \$7.50; add postage.

The Wilson Dry Bone Mill



No. 1 is a practical mill, grinding all kinds of shells, crockery, grit, burnt or dry bone feed, etc. Instantly adjusted to grind coarse or fine. Weighs 33 pounds. Diameter of hand wheel, 20 inches. Price, \$5.50. Add postage.

Black Hawk Mill

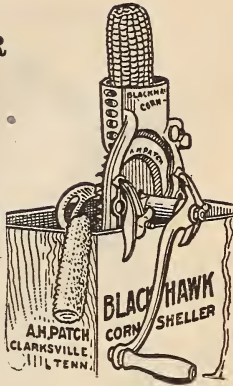


WITH A BLACK HAWK MILL in the house you crack the corn and grind any kind of grain to whatever degree of fineness you desire or whichever will best suit the use or condition of your chickens. Its wide range of usefulness, its durability and small cost will appeal to the family in town with a small flock in the back-yard, and it has a large enough capacity to meet the needs of those in the country who keep poultry on a big scale. Weight, 22 lbs. Price, \$4.00; add postage.

BLACK HAWK CORN SHELLER

A Sheller That Shells

It can be set to shell any corn that grows. Made with ball-bearings, obviating the expense of a heavy balance wheel. Easily fastened to box by thumbscrews—no bolts nor screws required—no holes to be bored. Weight, 14 lbs. Price, \$3.25; add postage.



U. S.

Special Poultry and Stock Fence

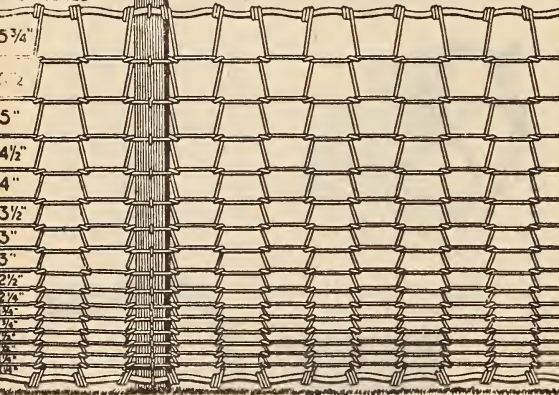


U. S.

The best proof of the high quality of our Seeds, are increased demands and additional customers.

Poultry Netting

48 INCHES



SPECIAL POULTRY AND STOCK FENCE

To meet the demand for a fence suited for poultry and stock this special fencing has been put on the market, and it is particularly adapted for such general purposes. It is scientifically constructed from the best material, heavily and thoroughly galvanized.

The illustration shows that the stays are in one piece running continuously from bottom to top, and that they are interwoven, so as to render it impossible to slip or spread the wires in any way. This makes the best as well as the strongest combination possible to be produced from the same amount of wire.

Price, 60-inch, 150 feet in roll, \$15.00.

The U. S. Poultry Wire combines strength, durability and neatness of appearance. It is flexible, and readily adjusts itself to uneven surfaces without buckling. Stretches in firm, straight lines without rail supports, requires few posts and no top or bottom rail is required to keep the fence from sagging or narrowing together between the posts. Bear in mind that the bars in the "U. S." fencing are only two inches apart. Put up in rolls containing 150 lineal feet.

PRICES

ONE-INCH MESH.

12 inches high, per roll of 150 feet,	\$4.00.
18 inches high, per roll of 150 feet,	\$5.75.
24 inches high, per roll of 150 feet,	\$7.25.
30 inches high, per roll of 150 feet,	\$8.75.
36 inches high, per roll of 150 feet,	\$10.00.

TWO-INCH MESH.

12 inches high, per roll of 150 feet,	\$2.00.
24 inches high, per roll of 150 feet,	\$3.75.
36 inches high, per roll of 150 feet,	\$5.00.
48 inches high, per roll of 150 feet,	\$6.50.
72 inches high, per roll of 150 feet,	\$8.25.
72 inches high, per roll of 150 feet,	\$10.00.

Prices subject to change.

M. M. S.



Pat. July 21, 1896.

[Trade Mark.]

Pat. July 6, 1897.

The M. M. S. wire being only one inch apart at the bottom requires no board to prevent little chicks passing through. Also saves buying expensive one-inch mesh wire.

60 inches high, 165 feet long, per roll,	\$7.50;
72 inches high, 165 feet long per roll,	\$8.00;

The prices here quoted are the lowest possible price at the time of going to press, but owing to the ever advancing prices these are not guaranteed, therefore, suggest that you write for quotations so that your order may not be delayed in shipping.

Price subject to change.

Roofing

Roofing is manufactured from a high-grade wool felt which is thoroughly saturated and coated with asphalt. It is fire-resisting, water proof and weather proof, and will last for a great many years. It is easy and quick to lay; can be used with equal success on a temporary shed, drykilo, mill or factory roof, modern office building or wherever a good material is required for a flat roof. Nails and cement are enclosed in each roll; made in different qualities.

1-ply, 34 lbs., per roll, \$2.50.

2-ply, 44 lbs., per roll, \$3.00.

3-ply, 54 lbs., per roll, \$3.60.

Ask for prices.

One roll covers 100 square feet.

Poultry Feeds

In the days gone by it used to be considered that anything was good enough to be fed to poultry. The poultry business of today is being rapidly conducted on a truly scientific basis. There are three great essentials to success in the poultry business: Stock, Care, Feed. The success of the poultry man will depend upon the care and attention given to these three points. We are not supplying stock, and cannot give care, but we can and are supplying feed.

The different kinds of feed manufactured by us are put up under our Clover Leaf Brand, each bag bearing our name and a large green four-leaved clover. These are not put up haphazard, but are always put up under the same formula regardless of the varying prices of the different grains and ingredients.

Advantages of using Clover Leaf Brand: Uniformity, Dependability, Purity, Cleanliness, Results.

Please note that we are quoting on poultry feeds at prices prevailing today, but we do not give any assurances that we will continue to sell at these quotations, as we expect to keep our prices on the basis of grain and other ingredi-

Alfalfa Meal

The value of some green food for fowls can hardly be overestimated. For a winter feed alfalfa is one of the best for this purpose. It contains more protein, lime and mineral salts in soluble and digestive form than clover, and fowls relish it in either a green or dry state. For producing eggs it has no equal. 100 lbs., \$2.25. Ents entering into their make-up,

Ryde's Milk Mash.

Milk-fed poultry are unquestionably the best. They grow faster and dress up into a firm white quality that cannot be surpassed. Ryde's Milk Mash is the same as new milk for baby chicks. No indigestion or bowel trouble from its use with practically no loss. It has the same feed value as whole milk and is just as easily digested. It saves both time and money, as it is far less expensive to feed than milk and contains ingredients essential to raising chicks not found in milk. 100-lb. bag, \$6.00; 50-lb. bag., \$3.10; 25-lb. bag, \$1.65.

Clover Leaf Chick Feed

The experience of poultry raisers is the same the world over, and that is that it is easier to hatch young chicks than it is to raise them. By using Clover Leaf Chick Feed you can give the chicks just what nature intended they should have, a food composed of grains, small seeds, grit, bone, dried sweet meat (to take the place of insects and bugs), charcoal, etc., mixed in the right proportion to produce a quick and profitable growth without loss. 25 lbs., \$1.35; 50 lbs., \$2.50; 100 lbs., \$4.75.

CLOVER LEAF FORCING FEED, as its name implies, is specially intended for properly maturing young chicks after they are ready to be weaned from chick feed. When the chicks are from six to eight weeks old they are able to eat larger particles of grain than are found in our chick feed.

Our Forcing Feed contains a variety of grain in sizes and quantities exactly suited to the purpose for which it is intended. 50 lbs., \$2.50; 100 lbs., \$4.75.

Clover Leaf Balanced Ration

This is a complete ground feed. It contains all the ingredients necessary to promote quick growth, to produce eggs and to keep the birds in a good condition. We have thoroughly studied the subject of feed for fowls and know this mixture will give you the desired results. Clover Leaf Balanced Ration costs only a little more than either wheat or corn and is of twice the value. 80-lb. bag \$2.50.



Can be fed dry or in a mash.



Clover Leaf Grit



The sharpest and hardest grit known. Free from dust. Rich in iron, silica, aluminum and mica. Each crystal has sharp edges, which cut and grind, and grind and cut until the last minute particle is worn away. In ordering state whether you want chick, medium size, 100 pounds, \$1.25.

Clover Leaf Scratch Feed

This is a balanced ration composed of the choicest grains, and other ingredients in just the correct proportions that several years of experience has demonstrated is right. Every practical poultry man will readily concede the great advantage of feeding such a mixture. Price, per 100 lbs., \$4.50.



Beef Scraps

The object in buying Beef Scraps or Meat Meal is to obtain the largest amount of digestible protein possible. Beef Scraps contain from 55 to 65 per cent of protein, 10 to 12 per cent of fat, and less than 5 per cent of ash.

Darling's, 100 lbs., \$6.75.

Armour's, 100 lbs., \$7.00.

Darling's Meat Crisps, packed in cartons, specially prepared, and of especially high grade, carrying 75 per cent protein. 30c; mailing weight, 2 lbs.; add postage.



Armour's Meat Meal—Contains from 50 to 65 per cent of protein, 10 to 12 per cent of fat and less than 5 per cent of ash. Pure, clean, sweet and wholesome. Will keep indefinitely if stored in a dry place. 100 lbs., \$7.00.

Blood Meal

One great reason why hens do not lay in winter is because they are not supplied the proper elements to produce the yolk of an egg. This can be remedied by the use of Dried Blood or Beef Scraps. Blood is the highest concentrated form of animal food and prepared so as to include all the elements of the so-called Red Albumen. Use only tablespoonful to six hens once a day. Standard, 100 lbs., \$6.50.

Bone, Granulated

Many poultrymen prefer granulated bone to fresh or green bone. Fresh bone contains 53 per cent of moisture and 12 per cent of grease, so that when a poultry man buys fresh bones he pays for 65 pounds of useless materials in every 100 pounds he buys. Granulated Bone is made from fresh bones with the moisture and grease taken out, leaving nothing but the phosphate of lime and nitrogen. 100 lbs., \$3.75.

Charcoal, Granulated

Our Granulated Charcoal is not ordinary commercial charcoal, but it especially prepared for poultry. It aids digestion, purifies the blood, regulates the bowels and promotes the general good health of the chicks and adult fowls. Fine granulated, for all mash rations and for small chicks and a coarser granulated for adult fowls. 50-lb. sack, \$2.00.

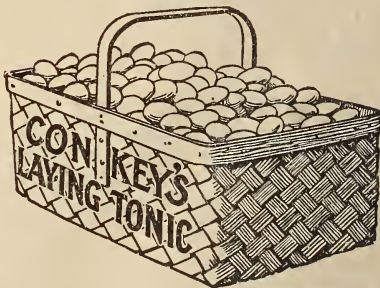
Shell

The feeding of shells to poultry prevents soft shelled eggs, makes the shells strong, and eggs larger and heavier.

Eastern Oyster Shell, per bag, \$1.50.

Poultry Tonics

Conkey's



POULTRY TONIC fills the egg basket in spite of weather. It is not a food, but a tonic to be mixed with the regular feed during seasons when fowls get sluggish and want to loaf instead of lay. Pkgs., 30c, 60c, \$1.20; 12-lb. pails, \$1.50; 25-lb. pails, \$2.75. Mailing weights, 2 lbs., 4 lbs., 8 lbs., 12 lbs., 32 lbs.; add postage.

POULTRY CONDITIONER—For general run-down condition; a fine general tonic during the moulting season or after recovery from any disease. Pkg., 30c; weight, 10 oz.; postpaid, 35c.

Gold Coin



POULTRY TONIC—It prevents all poultry diseases and saves feed. It is not what your poultry eat, but what they digest and turn into flesh and production of eggs that makes money for you.

25c, 50c, and \$1.00 packages; 12½ lb. pails, \$2.00; 25 lb. pails, \$3.50. Mailing weights, 2 lbs., 4 lbs., 7 lbs., 17 lbs., 30 lbs.; add postage.

MISCELLANEOUS

Poultry Pepper Compound

This is a splendid tonic at all times. A small amount sprinkled in with a hot mash will stimulate the circulation and increase egg production. Pkg., 25c; 5 lbs., \$1.00; add postage.

Copperas

A small piece placed in drinking water is a good tonic for chickens. Lb., 10c; add postage.

Poultry Remedies

Conkey's

BRONCHITIS REMEDY—Bronchitis is different from roup, and needs a special treatment which will reach the bronchial tubes. 60c; postpaid, 65c.

CANKER SPECIAL—A new remedy that effectively reduces the cankerous growth and brings the bird back to normal without a blemish. Also fine for treating colds, etc. Price, 60c; postpaid, 65c.

CHICKEN-POX OR SORE-HEAD REMEDY—Sore-head is getting to be one of the most serious troubles. Treat it promptly and save your flock. 60c; postpaid, 65c.

CHOLERA REMEDY—For indigestion, bowel trouble and all so-called "cholera" ailments of chicks and grown fowls. 60c; postpaid, 65c.

GAPE REMEDY—Gapes is a troublesome disease, tedious to cure, but this remedy is highly successful. 60c; postpaid, 65c.

HEAD LICE OINTMENT—If a chick droops always look for lice on head, neck or under wing. 15c, 30c; postpaid, 20c, 35c.

LICE-FIX—Another and effective way of going after and getting the body louse. Three or four applications a year are sufficient. Price, 30c; postpaid, 35c.

LICE LIQUID FOR MITES—Spraying walls and painting roosts, cracks and crevices is the only way to rid house of mites. Conkey's Lice Liquid is a highly satisfactory lice spray. Gal., \$1.25; 2 quarts, 75c; quart, 50c. Not mailable.

LICE POWDER—Conkey's Lice Powder is excellent for ridding fowls of body lice, as it quickly kills these pests when sifted into the feathers of the birds, and it does not injure the fowls or even taint eggs in the nest. 30c, 60c and \$1.20; mailing weight, 2 lbs., 4 lbs., 8 lbs.; add postage.

LIMBER NECK REMEDY—You will not lose a bird from limber neck if you give this medicine promptly. 60c; postpaid, 65c.

POULTRY LAXATIVE—Purgative or laxative, according to dose. 30c; postpaid, 35c.

ROUP PILLS—For the individual treatment of birds and for use in the show room. Price, 30c, 60c and \$1.20; postpaid, 35c, 65c and \$1.25.

ROUP REMEDY—Remember that roup is highly contagious. Neglect to treat promptly endangers your whole flock. But even in neglected stages don't despair, but use Conkey's Roup Remedy according to the special direction for worse cases. 60c and \$1.00; postpaid, 65c and \$1.05.

SCALY LEG REMEDY—Keeps the feet in nice shape. 30c; postpaid, 35c.

WHITE DIARRHOEA REMEDY is a special preventative and remedy for this dread scourge of incubator chicks. Price, 60c; postpaid, 65c.

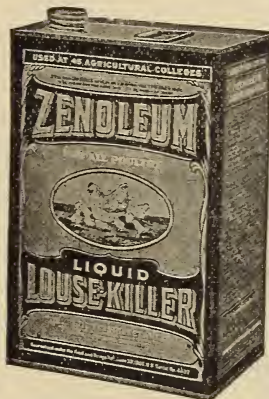
Gold Coin

LICE KILLER—Kills lice in hen houses, hog pens, stables, etc. Quarts, 35c; half gallon, 60c; one gallon, \$1.00. Not mailable.

LOUSE POWDER—Kills lice, ticks, mites on poultry, pigeons, dogs, cats, stock. Can, 25c; mailing weight, 2 lbs.; add postage.

DISINFECTANTS

Zenoleum



One gallon of Zenoleum makes 100 gallons of positive disinfectant. Kills vermin, cures skin trouble. Invaluable as a remedy for diseases of poultry and all live stock. Kills lice and cures mange. Disinfects incubators. 8-ounce can, 30c; quart, 60c; half gallon, \$1.00; gallon, \$1.75. Not mailable.

GERM KILLER—Destroys all disease germs, cleanses and purifies filthy places. Can, 25c and 50c; not mailable.

NOX-I-CIDE—Is an all-round preventative, as it keeps the quarters sanitary and kills the germs. Use it as a dip, disinfectant, spray or as a lice liquid. Gallon, \$1.75; 2 quarts, \$1.50; 1 quart, 75c; pint, 40c. Not mailable.

SULPHUR CANDLES—For fumigation, 10c; postpaid, 15c.

Lice Powders

BUHACH—Per oz., 15c; ¼ lb., 40c; ½ lb., 70c; 1 lb., \$1.25; add postage.

PERSIAN INSECT POWDER—Lb., 75c; add postage.

Tobacco Dust

For use in dust baths or nests. A cheap and effective exterminator of lice. Lb., 15c; add postage.

DOG SPECIALTIES

THEY FIGHT FOR SPRATT'S



PUPPY BISCUITS (The Standard Puppy Food)—A perfect and whole food for puppies of all breeds. Puppies should be started on these biscuits when about one month old and they should be continued until such time as their teeth become sound and strong, usually when they are about six months old. 40c; mailing weight, 3 lbs.; add postage.

DOG BISCUIT—The analysis of these biscuits shows that they are, weight for weight, equal in nourishment to fresh raw beefsteak and superior to it as a food for dogs. The standard dog food; a staple and constant food for all breeds of dogs. 40c; mailing weight, 3 lbs.; add postage.

Conkey's

DISTEMPER REMEDY—Price, 60c; postpaid, 65c.

MANGE REMEDY—For eczema, canker, sore ears, ring worms. 60c; postpaid, 65c.

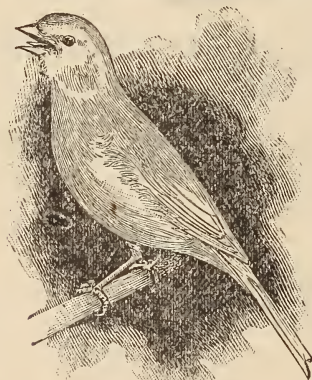
WORM DROPS—Price, 60c; postpaid, 65c.

FISH FOOD



SPRATT'S—The best food for rearing trout, etc. Used at the leading trout hatcheries. Price 10c; postpaid, 15c.

BIRD SPECIALTIES



SPRATT'S PATENT LEO

BIRD MANNA—Keeps cage birds in constant song, improves their plumage and prevents disease. 15c; postpaid, 20c.

SPRATT'S SONG RESTORER (Dunlap's)—A treat and tonic for canaries, linnets, and all seed-eating birds. 15c; postpaid, 20c.

SPRATT'S BIRD TONIC (Henning's)—For the prevention and cure of all diseases which cage birds are subjected to. Bottles, 15c; not mallable.

SPRATT'S PARROT FOOD—A mixed food for parrots which should be kept before them all the time. 15c; postpaid, 20c.

SPRATT'S "DEFIANCE" MOCKING BIRD FOOD—The purest food obtainable for mocking birds, robins, thrushes and other soft-billed birds. 30c; postpaid, 35c.

SPRATT'S PATENT POLLICRACKERS—A specially prepared biscuit for parrots and all similar birds. Made in a convenient size for a bird to grasp. Is greatly relished as a change. 15c; postpaid, 20c.

SPRATT'S "CANARDYNE" (Tibbs) — For asthma and wheezing in cage birds. Bottles, 30c; not mallable.

BIRD BITTERS—A remedy for nearly all the diseases of cage birds. 25c; postpaid, 30c.

BIRD HEALTH—A condition powder. Should be fed only when your bird is sick, but it should be used as a preventive of disease. 20c; postpaid, 25c.

MITE POWDER—To free the bird from mites, blow a little of the Mite Powder under the feathers of the bird in the evening by means of an insect powder gun. At night cover the cage with a piece of white canton flannel. Early next morning remove the flannel and carefully destroy all the mites, which have crawled into it during the night, by immersing it in hot water. Price, 25c; postpaid, 30c.

BIRD NESTS—15c; postpaid, 20c.

POWDER GUNS—15c; postpaid, 20c.

Bird Seed

CLOVER LEAF—Lb. packages, 15c.

CANARY—Per lb., 15c.

HEMP—Per lb., 10c.

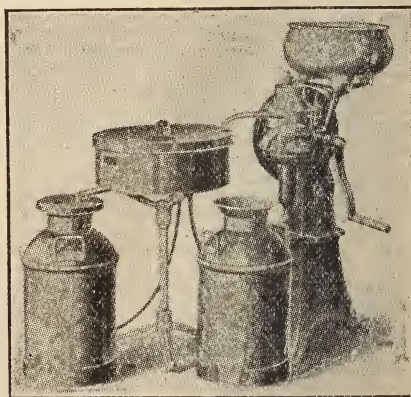
RAPE—Per lb., 10c.

MILLET—Per lb., 10c.

CUTTLE BONE—Two for 5c.

SUNFLOWER—Per lb., 15c.

Add postage on all bird seeds.

Dairy Supplies
CREAM AND MILK COOLERS

The Ideal Sanitary Cream Cooler
Will remove the animal heat from the cream

while flowing from the separator, and will reduce the temperature sufficiently low that it can be at once mixed with older cream and set aside for future delivery without further cooling.

Its cooling capacity is sufficient that where used in connection with the largest hand-power separator, it is capable of reducing the temperature to within three to four degrees of the water used.

It is so constructed that it can be placed under the cream spout of the smallest size separator and still be high enough to deliver by gravity into a 5 or 10 gallon can.

Price, \$15.00. Sanitary cover for milk can and elbow spout to fit cooler, \$1.25 extra.

Inferior Seeds are dear at any price. High grade Seeds are cheap at any price. Our Seeds are always high grade.

DE LAVAL CREAM SEPARATORS



Skims cleanest, turns and washes easiest, construction simplest; lasts the longest.

The De Laval was the first cream separator in 1878 and it has been first ever since.

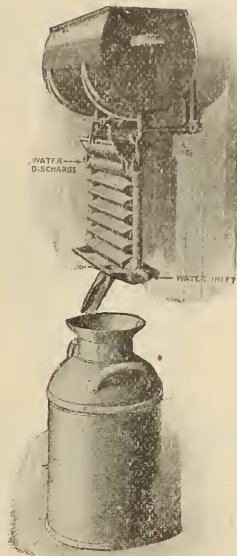
More De Laval's are in use than all other makes combined.

98 per cent of the world's creameries use the De Laval exclusively.

The machine that is best for the dairyman.

De Laval hand-size machines range in capacity from 1,350 to 225 pounds per hour—seven sizes.

The De Laval is by far the most economical cream separator and always gives satisfaction. Send for catalogue.



Junior.

JUNIOR—This cooler is of tin construction and is as strong and durable as it is possible to construct it, but being made of tin it is cheaper than the Bloom.

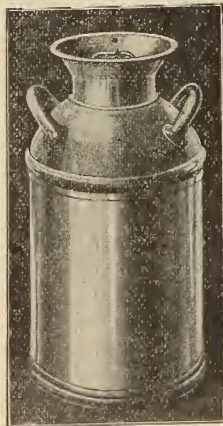
No.	Width.	Height	Capacity per		Price
			Hour		
A	15-in.	10-in.	20-gal.		\$22.50
B	15-in.	14-in.	40-gal.		\$27.00

CANS

TIGER—The material used in the manufacture of these cans is the very best obtainable; for proof of this we call your attention to the construction of the covers, necks and bottoms; no material but the very best and most select would ever stand the strain of drawing and bending which is done in the manufacture of our goods. The parts are all smooth without waves or wrinkles and are guaranteed not to split. Material that is not properly annealed will split and crack, but our cans are GUARANTEED not to do this.

All parts are treated to two coats of pure block tin after being properly made to size so that all edges are tinned just the same as the flat surfaces.

The bottom is No. 14 gauge steel. This can has what is commonly known as the "rolled in bottom." The breast hoop is notched with a V-shaped groove in which the breast is wedged, locking it securely in place. On other cans the breast hoop is simply shrunk into place and



held with solder; this hoop can easily be jarred loose. The neck is reinforced at the two most important points, and it makes a neck that will not break down. The body sheet and breast are No. 20 gauge steel and the cover is seamless. Malleable handles.

5 gallons, \$5.75. Weight, 12 lbs.

10 gallons, \$8.00. Weight, 21 lbs.

Add postage.

OHIO—This can is made with a single neck and is fitted with the popular outside bottom loop. It is very generally used for delivering milk and cream to the local creameries and will stand years of service. It is also used for a railroad shipping can. It has round handles and will be found a very satisfactory can.

5 gallons, \$5.25. Weight, 11 lbs.

10 gallons, \$6.75. Weight, 17 lbs.

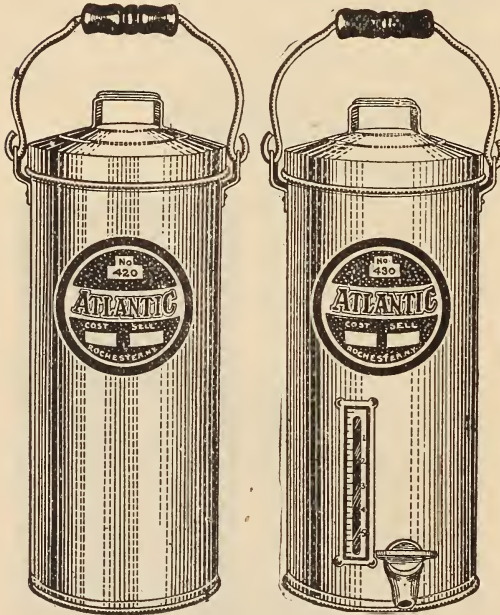
Add postage.



DELIVERY—Side handle, cover chained to can; well made and durable.

1 gallon, \$1.35; 2 gallon (St. Johns), \$4.00; 3 gallon (St. Johns), \$4.50. Weight, 1 gallon, 5 lbs.; 2 gallons, 7 lbs.; 3 gallons, 8 lbs. Add postage.

PAILS



420

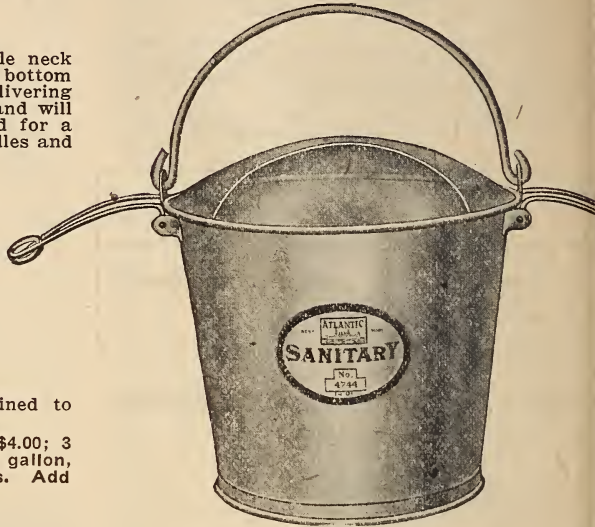
430

CREAM, No. 420—20-Quart—Dimensions, 9x20. Made from full weight 5 A charcoal plate. Heavy retinned, seamless cover. Heavy ears. Retinned bail with wood grip. Price, \$2.00; weight, 5 lbs. Add postage.

No. 414—14-Quart. Dimensions, 9x14. Made same as No. 420. Price, \$1.75; weight, 5 lbs.; add postage.

No. 424 and 430—14 and 20 Quart. Made the same as 414 and 420, and fitted with glass gauge and solid brass faucet. Price: 14-quart, \$2.25; weight, 5 lbs.; add postage. 20-quart, \$2.50; weight, 5 lbs.; add postage.

MILK PAILS



4744

MILK, No. 4744—14-quart. Sanitary 5A charcoal plate mirror finish, soldered inside and outside. Price, \$2.00; weight, 5 lbs.; add postage....

The following pails are strongly made, well finished and will give entire satisfaction:

Number	Size	Weight	Price
P13214	14	4 lbs.	\$1.25
P 1214	14	4 lbs.	.90
P 7512	12	4 lbs.	2.00
P13312	12	4 lbs.	1.25
P 1212	12	4 lbs.	.90
30	12	3 lbs.	.50
25	10	3 lbs.	.50
12	10	2 lbs.	.40

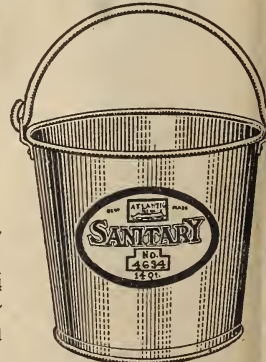
Add postage to price of above pails.

DAIRY, No. 4624—14-quart. Extra heavy steel clad. 5A charcoal plate mirror finish, four rivet ears. Extra heavy retinned balls. Price, \$1.35; weight, 4 lbs.; add postage.



4624

No. 4634—Sanitary 14-quart. Extra heavy steel clad 5A charcoal plate mirror finish, 4 rivet ears. Extra heavy retinned balls. Soldered inside and outside. Price, \$1.50; weight, 4 lbs.; add postage.



4634

MILK AND CREAM SCALE

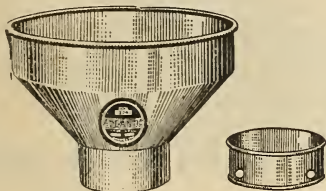
SPRING BALANCE

This scale is specially made for weighing milk in pails. The dial is divided into ounces. The indicator is adjustable, so that it can be set back to take out weight of pail. Each scale carefully tested and guaranteed accurate.

30 lbs. \$4.50
60 lbs. \$6.00

Weight, 4 and 5 lbs.; add postage.

STRAINERS



4-Quart, No. A1934, \$1.50; weight, 2 lbs.; add postage.

6-Quart, No. A1936, \$1.75; weight, 2 lbs.; add postage.

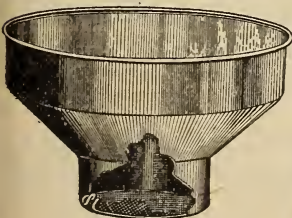
10-Quart, No. 410, \$2.00; weight, 3 lbs.; add postage.

Extra heavy retinned, seamless, sanitary, 70 mesh, solid brass strainer cloth. Extra slip foot for cheese cloth.



910

10-Quart, No. 910—Extra heavy retinned seamless, sanitary, double milk strainers. Inside strainer 100 mesh, outside strainer 70 mesh. Price, \$3.00; weight, 5 lbs.; add postage.



Lock Spring



70-Mesh Strainer Cloth



Perforated Tin

No. 1010—10-Quart—Extra heavy retinned, seamless; removable strainers; sterilized cotton wadding used between perforated tin and strainer cloth. Each, \$2.50. Weight, 4 lbs.; add postage.

CHURNS—BARREL



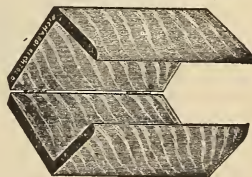
These churns are strongly constructed, are durable, do good work and will give entire satisfaction.

5 gallons.....\$6.50
9 gallons.....\$7.00

15 gallons.....\$7.50
20 gallons.....\$8.50

BUTTER MOLDS

All wood, brass hinges and screws. Price, 40c; weight 1 lb.; add postage.



Ideal Family Butter Mold

This printer is well made, durable, and where only a small amount of butter is to be printed, makes fully as satisfactory prints as one costing several times as much. The weight of the print may be quickly regulated by the two brass adjusting screws. Comes in two different patterns:

Western Style Print—1½x3x6¾ inches.

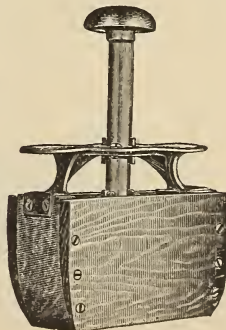
Eastern Style Print—4¾x2½x2¾ inches.

Each, \$1.50; weight, 2 lbs.; add postage.

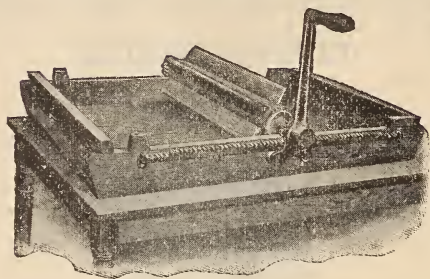
Up-to-Date Printer

Specially selected close grained hardwood; nicked brass trimmings. Size of prints quickly adjusted. Prices are with plain (uncarved) blocks.

Printer to print pounds 4¾x2½x2¾ in. each \$4.50; weight, 4 lbs.; add postage.



Wizard Butter Worker

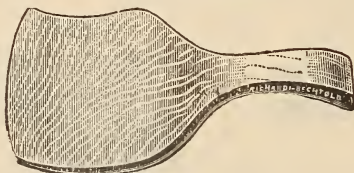


This style worker is a favorite with many. The butter is placed in the tray, salt added and then worked by turning the crank, which causes the fluted roller to travel to and fro. The metal parts are all galvanized to prevent rust. Cut shows worker set on table, but prices below are for worker only without legs.

No. 3—Size, 17x29 in. and 3 in. deep inside, capacity 20 lbs., weight 25 lbs. Price, \$9.00.

No. 4—Size 14x23 in. and 2½ in. deep inside, capacity 10 lbs., weight 20 lbs. Price, \$8.00.

Butter Ladles



Dairy Spoon

Corrugated Dairy Ladle—2¼x9¾, each, 15c.

Dairy Spoon, 4x9, each, 15c.

Postage 5c extra.

Butter Color

Wells & Richardson, bottles, 25c, 50c, \$1.00. Add 5c additional for postage.

MILK BOTTLES

It is true that "in milk bottles as in almost all other things there is a great difference in quality, and it is equally true that dealers have not said much about this fact, but have simply sold milk bottles. Different factories sell milk bottles at different prices on account of difference in quality and the difference in the manner of making. Milk bottles are manufactured in three ways: By hand, by half machine process, and machine made. Hand made and what is termed half machine made are not and can not be made of uniform size, neither can they be made with an even distribution of glass over the entire bottle, consequently some parts of the bottle will be thicker than is necessary and some parts thinner. The strength and duration of the bottle is governed not by the thick, strong parts, but by the weak, thin parts.

Hand and half machine made milk bottles will be found to have imperfect cap seats, because of the way in which they are made.

Machine made milk bottles are of uniform correct capacity, have even distribution of glass, and have always perfect cap seats. What is known as Owen's (Patented) machine for the manufacture of machine-made milk bottles, is the only machine invented so far that will do this work.

The Thatcher Manufacturing Co. has the sole use of this machine, and are the only manufacturers that are making milk bottles by a machine. In addition, the plants producing these machine-made milk bottles do not make any other style bottle. Consequently, they can produce them of a more uniform quality, of a more uniform color and a much better, higher grade of bottle.

After a thorough investigation of milk bottles we have decided to handle the Thatcher, because of their superior quality and greater durability. It is true there are bottles that can be bought for less money than the Thatcher, but it is equally true that the Thatchers are the cheapest.

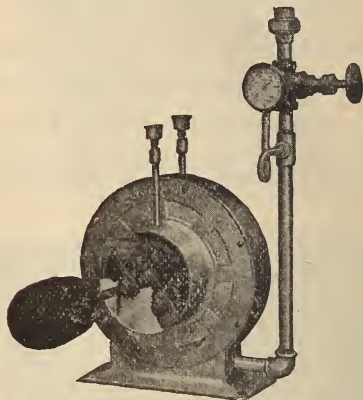
Half Pints, doz., 75c; gross, \$8.00.

Pints, doz., \$1.00; gross, \$10.00.

Quarts, doz., \$1.25; gross, \$12.50.

Not mailable.

TURBINE BOTTLE WASHERS



THE 20TH CENTURY

This bottle washer is made with a new gearless turbine, the speed being controlled by the governor. When the speed of the turbine reaches a certain point the governor operates to prevent the speed exceeding the limits of safety. This governor is in a separate case to keep out the moisture, which would have a tendency to cause the bearings to rust and cause it to act too slowly. The cover to this case can be removed in a moment and the speed adjusted at any desired point.

The brush spindle is so constructed that it will hold the brush handle firmly, and when it is desired to replace worn out brushes with new ones, a few seconds' time is all that is required.

The machine is heavily galvanized and is fitted with compression grease cups, bronze gears and bearings, special steam gauge and syphon, globe valve, and all necessary pipes and couplings. Price, \$37.50.

BOTTLE CAPS

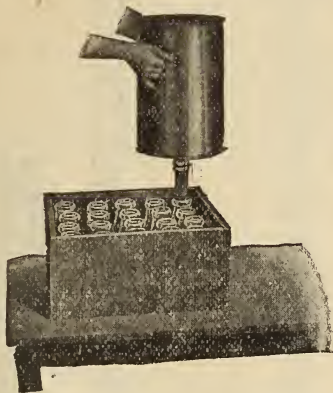
BOTTLE CAPS—No lift, 50c per 1000; per-fection, with lift, 60c per 1000.

Special prices on barrel lots of 50 M, printed with your name.

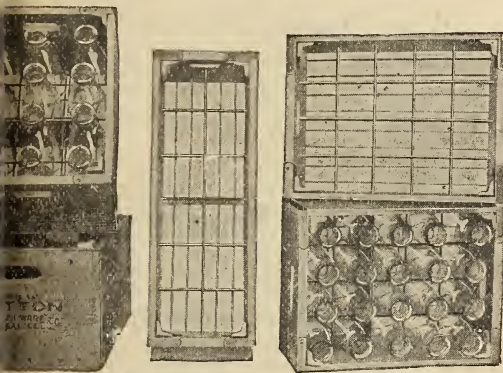
Postage 10c extra per M.

SINGLE VALVE FILLER

The cut herewith is of a very simple and practical bottle filler for filling bottles one at a time and suitable for dealers filling 50 to 300 bottles per day. It consists of a cylindrical can having a stiff, heavy bottom to which is attached a standard bottle-filling valve. The operation is easily understood from the cut. Bottles can be filled in delivery cases or when setting on table or bench. Fills all bottles to an even height, no topping or refilling. Valve can be taken apart for cleaning in less than five seconds. Price, tin can, no case furnished, \$9.50.



BOTTLE DELIVERY CASES



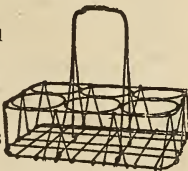
12-Quart, \$1.50; weight, 13 lbs.; add postage.
15-Pint, \$1.50; weight, 11 lbs.; add postage.
15-Half-pint, \$1.50; weight, 13 lbs.; add postage.
age. Straight or Assorted, 1/2 doz., \$8.00; doz., \$15.00.

BOTTLE CARRIERS

Galvanized, with improved handles.

12 bottles, 1/2 pints, ea. \$1.50
6 bottles, qts., each.....\$1.25
6 bottles, pints, each..... 1.00

Weight, 5 lbs., 3 lbs. and 3 lbs. each; add postage.



BRUSHES—Bottles, Milk



No. 72—Black china bristle, brush part 2 3/4 in. diameter, 6 inches long; handle 9 in. Price, 50c.



No. 73—See description under bowl. Price, 60c.



No. 86—Same description as No. 72 with exception of stiff bristle and better quality. Price, each, 50c.



No. 124—Machine brush, extra stiff gray hair; brush part 3 inches diameter and 6 1/2 inches long. Handle 9 inches. Price, 60c.

Bottles, Test



No. 60—Stiff bristle body and tufts, brush part 3 1/4 inches wide, 2 1/4 inches thick, 7 inches long, hardwood handle, 1/2 inch diameter; 10 inches long. Price, 45c.



No. 1—For Babcock 10% milk bottles; white bristle; brush and handle 7 1/2 inches. Price, 15c.



No. 107—For Babcock cream bottles; white bristle in body and tuft; length over all, 11 in. Price 25c.

Bowl

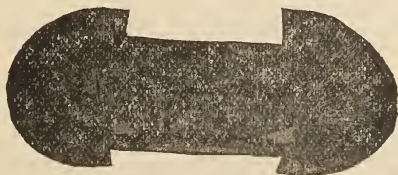
No. 104—De Laval, small, black china bristle; brush part 3/4 inch diameter, 2 1/2 inches long; length over all 8 1/4 inches. Price, 15c.

No. 72—Black china bristle; brush part 2 3/4 inches diameter, 6 inches long; handle 9 inches. Price 50c.

No. 47—Black Tampico. Brush part 3 1/4 inches diameter, 5 1/2 inches long; length over all 13 1/2 inches. Price, 40c.

No. 73—Black China Bristle; brush part 3 1/4 inches diameter, 6 inches long, hickory handle. 1/2 inch diameter; 9 inches long. Price, 60c.

Can



No. 08—Stiff Palmetto Fibre; length on face, 9 inches; width on face, 5 inches. Price, 50c.

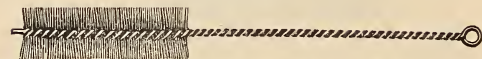


No. 412—Palmetto fibre, straight handle, brush part $4\frac{1}{2}$ inches diameter, $5\frac{1}{2}$ inches long; length over all, 24 inches. Price, \$1.25.

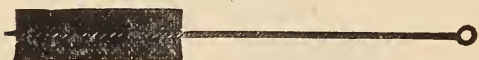


No. 47—See description under Bowl Brush. Price, 40c.

Spout



No. 104—See description under Bowl. Price, 15c.



No. 10—Gray bristle; brush part 5 inches; length over all, 13 inches. Price, 20c.
Add 5c to all brushes if forwarded by mail.

RUBBER RINGS

No. 3033—For No. 5, 10 and 12 DeLaval Separators. 2 for 25c.

No. 3557—For No. 15 DeLaval Separators. 2 for 25c.

No. 1, 1B, 2 and 2B Empires, 2 for 25c.

Balls, Steel

For Empire Separators, 5c each.

Points, Steel

For Empire Separators, 15c each.

No. 3072—For No. 5, 10 and 12 DeLaval Separators, old style, 2 for 25c.

No. 4110—For No. 12 and 15 DeLaval Separators, new style, 2 for 25c.

MILK CAN SEALS

Seal your cans; insure yourself against loss, at a very small cost.

Lead, single wire: 100, 30c; 500, \$1.25; 1000 \$2.00.

Seal press, each, \$2.25; weight, 2 lbs.; add postage.

Duro Stirrer or Sampler

Both Sampler and Stirrer have saucer-shaped disc of steel firmly attached to wrought iron handle of sufficient length to reach bottom of 10-gallon can. First agitate vigorously, then lift straight up. Sampler bowl holds sufficient amount for sample and has lip for easy pouring into cup or sample jar. Stirrer bowl is punched with five holes. Makes stirring more efficient and tends to aerate contents of can.

Stirrer or Sampler, each 50c; weight, 2 lbs.; add postage.

THERMOMETERS

Thermometers and all glassware packed in the most careful manner, but owing to the great liability in breakage when sent by parcel post we will not guarantee their safe delivery nor be responsible in case of breakage. To avoid loss the best plan is to have them insured, and if you so desire, include insurance with your remittance.



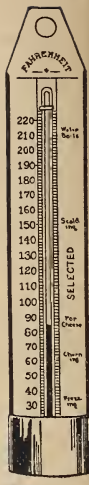
5700



5701



5730



5740

Glass Floating, Standard Grade

5700—Churn Thermometer, glass cylinder, hand written paper scale, 1° graduation, accurate within one division of the scale, mercury tube, shot weighted, guaranteed to float upright. Approximate scale range, 10° to 110° F., 8 inches. Price, \$2.50; postpaid, \$2.75.

5701—Pasturizing Thermometer, glass cylinder hand written paper scale, 2° graduation, accurate within one division of the scale, mercury tube. Approximate scale range 30° to 220° F. 8 inches. Price, \$2.50; postpaid, \$2.75.

Flanged Metal, Extra Grade.

5730—Spirit, black oxidized brass scales, white filled figures and graduations, sliding guard, red liquid tubes. Price, \$1.50. Postpaid, \$1.60.

Selected Common Grade

5740—Spirit, selected common grade. Nickered. sliding guard; red liquid tubes. Price, \$1.00; postpaid, \$1.10.

CATTLE INSTRUMENTS

CATTLE TROCAR—Will promptly and safely relieve bloot. Every owner of cattle should have one on hand. Easy to use. Price, \$1.50. Postpaid, \$1.55.

FEVER THERMOMETER—The normal temperature of the horse is $99\text{--}100^{\circ}$ degrees, of cow is $99\text{--}102^{\circ}$ degrees. Every owner of stock should have a Fever Thermometer for immediate use when an animal is taken sick. You can thus distinguish whether or not it is a febrile (fever) disease, and if it is, proceed at once to give necessary medicine to prevent the fever rising. They are easy to use. These Thermometers are tested and registered. Price, \$2.00; postpaid, \$2.05.

GARGET SYRINGE—Has a special make of rubber tubing, which allows the flow to be continuous instead of intermittent. It also has a double channel metal tube. One part of this tube is to inject the Garget Remedy into the udder and the other part allows the fluid, dead germs and other impure matters to escape from the udder. On the other end of the rubber tube is fitted an improved strainer made of copper, which prevents hayseed or other foreign matter from entering the apparatus and clogging up the valves.

Pilling Garget Outfit Consists Of

Pilling Garget Syringe, Pilling Remedy (30 treatments), Pilling Animal Soap. Price, \$4.00; postpaid, \$4.10.

HARD RUBBER TEAT PLUG—Especially designed for two purposes: First, to prevent dropping of milk in cows where there is relaxation of the little muscles at the end of the teat and consequent leakage of milk; and, secondly, to dilate the canal of the teat above the muscle in cases where hard milking is due to contraction of this part of the canal. Price, 50c; postpaid, 55c.

MILKING TUBE—Plain, plated. Price, 35c; postpaid, 40c.

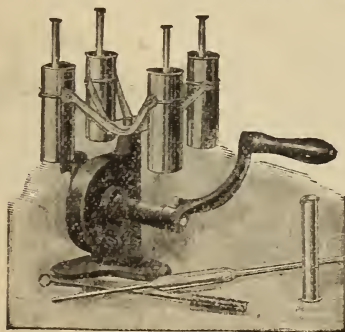
MILKING TUBE—Self-retaining, 3 inches, solid coin silver. Price, 60c; postpaid, 65c.

TEAT EXPANDERS—Of metal, nickel-plated, is intended to expand and enlarge the opening of hard-milking teats. Also, at the same time, it expands the milk canal; it is considered the best method of treating hard milkers. Easy to use. Price, 50c. Postpaid, 55c.

LEAD PROBE—For enlarging opening in the cow's teats. 25c; postpaid, 30c.

MILK FEVER OUTFIT—Is made according to specifications described in Farmers' Bulletin, 45, issued by the Bureau of Animal Industry, U. S. Department of Agriculture, except we do not use the rubber bulb, which so easily rots; but in its place we furnish, without extra charge, our patented Metal Pumps, which will last a lifetime. All genuine Pilling Milk Fever Outfits have our trade mark.

Milk Fever Outfit With Metal Pump and Regulator Tube, \$3.00. Postpaid, \$3.10.

BABCOCK MILK TESTER

Many thousands of "Official" testers have been sold. It is used by dairymen, farmers, in hotels, restaurants and laboratories. It does accurate work, and with the instructions furnished anyone can make a perfect test. The most convenient and accurate of any low priced hand tester ever offered.

Made in two and four bottle sizes. Each tester includes a full set of bottles, pipette, acid measure, test bottle brush, acid and full directions for making tests.

No. 1—2-bottle, milk only, \$5.25.

No. 2—4-bottle, milk only, \$6.25.

No. 3—2-bottle, milk and cream, \$5.75.

No. 4—4-bottle, milk and cream, \$6.75.

20th CENTURY

This is an especially fine hand tester, and is built in dairies which are without the steam apparatus necessary to run a turbine tester. A speed of from 900 to 1,000 r.p.m. can easily be

obtained. All gears are encased and at the top of the machine; are milled in special milling machine; are absolutely accurate and therefore noiseless. The bottles are perfectly enclosed, doing away with danger from flying glass, acid, etc., should one of the bottles break. Complete with glassware. 6 bottles. Price \$16.00.

ACID MEASURES

17—5 C. C. Each, 20c; ½ doz., \$1.00; doz., \$1.75.

TEST BOTTLES

Milk, 6-inch, 10 per cent. Each, 30c; ½ doz., \$1.50; doz., \$2.75.

Cream, 6-inch, 50 per cent, 18 dram. Each, 35c; ½ doz., \$2.00; doz., \$3.50.

Skim milk. Each, 90c.

Postage 5c extra.

PIPETTES

17—6 and 18 C. C. combined, each, 30c; ½ doz., \$1.50; doz., \$2.50.

Postage 5c extra.

ABSORBENT COTTON—An approved cotton for filtering milk, prepared in rolls, neatly wrapped and sealed. One 1-lb. roll, 50c; add postage.

LINEN STRAINER CLOTH is used to place above or below absorbent cotton to prevent the milk from tearing the cotton as it is emptied upon it. Price, per yard. 72 inches wide, 90c; add postage.

RED CROSS FILTER CLOTH—Is a specially woven cloth with the nap raised and is intended to take the place of ordinary cotton and strainer cloth, as it combines in itself the qualities of both. It is especially commended for use in filter vats, and can strainers. 1-lb rolls, 17 in. wide by 20 feet long, each, \$1.00; add postage.

PARCHMENT BUTTER WRAPPERS

8x11—Plain 100, 20c; 500, 80c; 1000, \$1.75.

8x11—Printed, 100, 25c; 500, 90c; 1000, \$2.00.

9x12—Plain, 100, 25c; 500, \$1.00; 1000, \$2.00.

9x12—Printed, 100, 30c; 500, \$1.10; 1000, \$2.25.

The printing does not include name and address, but is what is known as stock print and states.

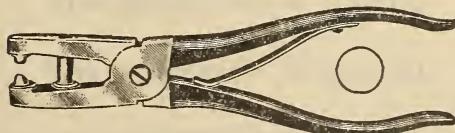
Weight per thousand, 7 lbs.; add postage.

SEPARATOR OIL

Price, quart, 40c; ½ gallon, 65c; gallon, \$1.00. Not available.

PUNCHES

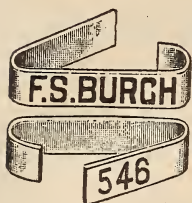
This punch is made for inserting the labels only. It is necessary to cut hole in ear and also to seal labels. Price, \$1.25. Postpaid, \$1.30.



This combined punch and pliers are especially made for adjusting the buttons. The cutter makes the necessary hole, and the nipples seal the button.

Each, \$1.25; postpaid, \$1.30.

EAR TAGS



	Sheep and Hogs.	Cattle
25 name and number.....	\$0.75	\$0.85
50 name and number.....	1.15	1.40
100 name and number.....	1.65	2.15
500 name and number.....	7.50	10.00
25 name only or number only.....	.60	.75
50 name only or number only.....	.85	1.15
100 name only or number only.....	1.25	1.65
500 name only or number only.....	5.50	8.50

Name can be put on the one side, numbers on the other. Not more than 10 large size letters can be put on hog or sheep sizes, or fifteen on cattle. Mailing weight, 100 sheep size, 1 lb.; 100 cattle, 3 lbs.



IDEAL EAR BUTTONS

Are made of pure hardened aluminum, consisting of two parts or sleeves, thus giving an absolute seal that will not become loose.

25, \$1.25; 50, \$1.90; 100, \$3.50; 500, \$15.50; 1000, \$28.00.

Add 5c per 100 or less number for postage.

SALE TAGS

These tags are very popular with hog men for identification during sales, as they are easily fixed in the ear with the regular hog rings, made of aluminum.

25, 60c; 50, \$1.00; 100, \$1.75.

Add 5c for postage to above prices.



*The best proof of the high
quality of our goods are
increased demands and
additional customers.*

STANCHIONS

It is a recognized fact that the use of stanchions is the most approved way of confining milk cows in their stalls. It is true that safety and comfort are the points to be considered in selecting your stanchions, and it is also equally true that all stanchions do not offer these in the same degree. The J. 14 is equipped with Alignment Irons, Wood Lining, Double Chain Hanger, Anchor Plate, and Lock Open Device.

ALIGNMENT DEVICE—Adjusts the stanchion forward or backward in the stall lengthening or shortening the stall to fit the cow.

WOOD LINING—Is made of thoroughly seasoned birch, carefully milled, shaped, polished to a perfect smoothness.

DOUBLE CHAIN HANGER—Is attached to at the sides, where the strain all comes on the side bars; is made of specially annealed malleable iron, giving it remarkable strength; will not break or get out of order.



J. 14

ANCHOR PLATE—Set in the concrete curb, furnishes a firm anchorage, to which the stanchion is attached; is so designed that a bolt may be easily inserted or taken out.

LOCK OPEN DEVICE—This consists of a small chain attached to the loose arm of the stanchion, one link being inserted into a hook on the rigid post of the stanchion frame, making it impossible for the cow to disengage it.

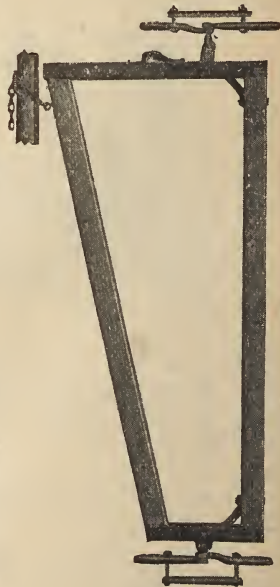
J. 14—Price, \$3.50.

K. 15—The same stanchion exactly as J. 14, with exception of alignment device.

Price, \$3.00.

R. 14—This is an all wood stanchion, made of selected hard wood and is undoubtedly the best wood stanchion made at a moderate price. It possesses all the advantageous features that has made this line of stanchions so popular, but does not have the double chain hanger, and the neck space is not adjustable. Price, \$3.00.

S. 14—Same stanchion exactly as R. 14 with the exception of alignment device. Price, \$2.75.



R. 14

STOCK FEED—RAISE YOUR CALVES WITHOUT MILK

It is not necessary to feed high-priced milk or butter fats. Just as sleek, thrifty calves can be raised with little or no milk by using

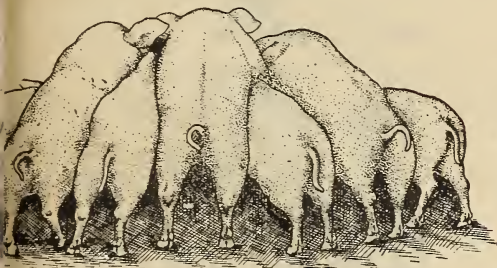
Ryde's Cream Calf Meal

RICHEST SUBSTITUTE FOR MILK



It contains every element that long and practical experience has shown to give as good results as milk for growing calves as well as all other young stock. By special process it is thoroughly cooked and prepared for easy digestion and assimilation by the youngest animals, and they show a remarkable thrifty growth on it. Fed dry it prevents scouring.

Ryde's Pig Meal



MAKING HOGS OF THEMSELVES

The secret of success in raising hogs is rapid growth and reducing the death loss of the younger pigs. The most important item is, the feed for the young pigs, particularly, at the time when they are starting to shift for themselves. They require a feed that they relish, that is easily digested and that supplies them with all the various food elements necessary for their rapid and symmetrical growth.

RYDE'S PIG MEAL.

is the greatest pig developer on the market today. It contains every possible ingredient in the correct proportion that they require to push them forward to maturity in the shortest possible time. It is made for this purpose only, and contains every constituent that pigs require to nourish them properly and in the most digestible form. In composition and results it is the same as new milk, but at far less in cost of feeding.

One pound of RYDE'S PIG MEAL will make one gallon of rich, nutritious gruel. It keeps young pigs strong and healthy and makes them grow rapidly. They will dress up in quality like a milk-fed hog at less than one-third the expense of feeding milk. 25-lb. bag, \$1.65; 50-lb., bag, \$3.10; 100-lb. bag, \$6.00.



100 LBS. MAKES 100 GALLONS
Perfect Substitute for Milk.

Ryde's Cream Calf Meal can be fed at about 5c per gallon in gruel form, which in feeding value and results will take the place of a like amount of whole milk worth from 12c to 18c a gallon.

Complete feeding directions in every bag. Booklet "Milkless Calves" Free.

Try it on your next calves, as the calf you raise is the calf that pays.

Price, 25-lb. bag, \$1.65; 50-lb. bag, \$3.10; 100-lb. bag, \$6.00.

OIL MEAL

Suggestions for Feeding

MILCH COWS—Any quantity per day not exceeding two quarts per head.

FEEDING FOR MARKET—Three to six pounds per head per day.

HOGS—About 25 pounds to each barrel of thin slop, mix thoroughly and allow to stand about ten hours before feeding.

SHEEP—One to one and one-half pounds per day per head. This amount is not sufficient for fattening wethers, but has the positive effect of largely increasing the growth of wool.

HORSES—One pint to one quart per head per day when fed with grain, bran and similar feeds.

FOWLS—Mix into a soft or boiled feed or a bran mash, at least one-tenth of the mixture to be fine ground Oil Meal.

LINSEED OIL MEAL is a food, not a medicine. There is no danger of feeding too much.

LINSEED OIL MEAL has proven that it is the greatest flesh-former, milk and butter producer, of all concentrated stock feeds.

ITS VALUE AS A FLESH PRODUCER

The following table shows value as compared with other material, as to the percentage of flesh produced from 100 pounds:

Indian Corn Meal	11 per cent
Barley Meal	13 per cent
Wheat	14 per cent
Oat Meal	18 per cent
Oil Meal	22 per cent

N. B.—1 lb. Oil Meal equals 3 lbs. corn, 9 lbs. Lump, Utah, 100 lbs., \$1.50.
wheat bran, or 15 lbs. hay.

ITS VALUE AS A MILK PRODUCER

The following table shows the relative value of feeds as milk producers:

Timothy	per 100 lbs. \$0.50
Clover Hay	per 100 lbs. .60
Corn	per 100 lbs. .50
Barley	per 100 lbs. .55
Oats	per 100 lbs. .60
Wheat	per 100 lbs. .65
Wheat Bran	per 100 lbs. .70
Oil Meal	per 100 lbs. 1.45

Price, \$4.00.

DIGESTER TANKAGE

Every well informed feeder knows that corn and other home grown feeding stuffs lacks protein and phosphates.

To supply these materials in most economical form Experiment Stations and Progressive Feeders now recognize Digester Tankage as being the best and cheapest that can be secured.

Brood sows must have plenty of protein and phosphates in their rations, otherwise they will farrow weak, puny pigs, defective in bone and muscle. Digester Tankage is appetizing and helpful when fed to newly weaned pigs.

Hogs on clover or alfalfa pasture if fed a little Digester Tankage will be improved and cost of grains greatly reduced. 100 lbs., \$5.00.

STOCK TONICS

Conkey's

COW SPECIAL—Is strictly a medicine—a preventive measure—a tonic—an aid in the treatment of certain cow disorders when used as directed. Cow special does not contain any filler. If consumers are not satisfied with the results obtained we will cheerfully refund the purchase price. Pkg., 60c and \$1.20. Postpaid, 70c and \$1.30.

HORSE REMEDY—A stimulating medicine for debilitated and exhausted conditions. \$1.00; not mailable.

STOCK TONIC—It keeps up appetite, insures full digestion of the ration, prevents waste of feed, that is, brings you the most possible return for every pound of feed. Not a food itself, but a medicine. 30c. 60c, \$1.20; 12 lbs. (pail), \$2.00; 25 lbs. (pail), \$3.50; mailing weight, 2 lbs., 4 lbs., 8 lbs., 17 lbs., 32 lbs.; add postage.

Gold Coin

CATTLE TONIC—Four doses for 1 cent. Feed Cattle Tonic for loss of appetite, to increase flow of milk, to cure scours, to aid in fattening and finishing of steers, to prevent and cure scour in calves. 25c and 50c packages; 25-lb. pail, \$3.50; mailing weight, 2 lbs., 4 lbs., 30 lbs.; add postage.

HOG TONIC WORM EXPELLERS—Four dooses for 1 cent. Hog Tonic is a medicinal tonic made from the roots, barks, seeds and herbs required by Nature to keep the system of hogs in healthy condition, for overcoming and preventing diseases and worms in swine, and to aid digestion and quick fattening. A splendid stimulant for the internal treatment of hog cholera. 50c pkgs.; 25-lb. pail, \$3.50; mailing weight, 4 lbs., 30 lbs.; add postage.



HORSE TONIC—Horse Tonic hardens the muscles. It aids digestion. It purifies the blood and sleekens the coat. It clears the

water, regulates the bowels, cures and prevents disease. Price, 25c, 50c and \$1.00 packages; 12½-lb. pails, \$2.00; 25-lb. pails \$3.50, mailing weight, 2 lbs., 4 lbs., 7 lbs., 17 lbs., 30 lbs.; add postage.

STOCK REMEDIES

Conkey's

ABSORBENT—Cures lameness, removes the blemishes. \$1.20; postpaid, \$1.25.

BAG OINTMENT—A penetrating, softening application which soothes quickly. A remedy for many bag troubles. 30c and 60c; postpaid, 35c and 65c.

COLIC REMEDY—A lifesaver and should be on hand for emergency. 60c and \$1.20; postpaid, 65c and \$1.25.

DISTEMPER AND COUGH REMEDY—For all cases of cough, cold, chill and fever, epizootic, distemper or strangles, pink eye, etc. 60c and \$1.20; postpaid, \$65c and \$1.25.

Eye Remedy, 60c; postpaid, 65c.

Fever Remedy, \$1.20; postpaid, \$1.25.

FISTULA AND POLL EVIL REMEDY—Effective and very humane. \$2.40; postpaid, \$2.45.

GALL SALVE—A healing ointment for sores, cuts, harness and saddle galls, chafes, etc. 30c and 60c; postpaid, 35c, 65c.

GOLD COIN

HEALING POWDER—A wonderful gall cure. For chafes, sores, etc. 25c and 50c; postpaid, 30c, 55c.



FLY KNOCKER

—All the time your stock is pestered by flies you are losing your profits. Use it on your horses and cattle night and morning. Does not injure the hide; odor will not taint milk. Keeps flies off, kills every one it hits, prevents lice and grub. Qt., 50c; 2 qts., 75c; gal., \$1.25. Not mailable.



HEAVE REMEDY—Corrects digestive disturbance as well as nervous derangement, \$1.20; postpaid, \$1.25.

HOOF REMEDY—Keep's your horse's hoofs in nice shape. Pt., 60c; postpaid, 70c.

PAIN LOTION—For soreness, throbbing pains, inflammation, cuts, wounds, burns. 60c; postpaid, 65c.

SHEEP DIP—This is a new scientific "dip" founded on scientific principles. It is cheaper, stronger and safer than any other "dip." It goes farther. Quart, 50c; ½ gallon, 75c; gallon, \$1.25. Not mailable.

WORM REMEDY—A prompt and powerful remedy for stock badly infested. 60c; postpaid, 65c.

Gold Coin

GOLD AND DISTEMPER CURE—A specific for distemper in young or old horses. Pkg., 50c; postpaid, 60c.

COLIC CURE—Cures wind colic, bloat, spasmodic colic, stoppage of urine, etc. Bottle, 50c. Not mallable.

COMPOUND LINIMENT—Rub the affected parts thoroughly with the liniment. Bandage only when a blister is desired. Bottle, 50c. Not mallable.

CONDITION POWDER—For sick animals. A high class medicine for fevers and all acute diseases. Package, 50c; postpaid, 60c.

COUGH AND LUNG SYRUP—This is a cough syrup for horses, cattle, sheep or hogs. It is important to attend to all lung diseases promptly. Bottle, 75c and \$3.50. Not mallable.

FOOT REMEDY—Quickly cures sore feet, lameness from corns, sand cracks, quarter cracks, contracted heels, etc. Can, 50c. Not mallable.

Fly Blister, \$2.00; postpaid, \$2.05.

GALL CURE—For sores on neck, shoulders and back from rubbing of harness or saddles. All cuts or wounds on horses. Can, 50c; postpaid, 55c.

HEALING OIL—For barb wire cuts, nail injuries, burns, flesh wounds or cuts. Bottle, 25c and 50c. Not mallable.

HEAVE CURE—It is the best and cheapest heave cure. Package, 50c; postpaid, 60c.

Hoof Ointment, \$1.00; mailing weight, 2 lbs.; add postage.

LUMP JAW—Cures the disease known as lumpy jaw, which is due to a micro-organism. \$2.00; postpaid, \$2.05.

SOAP—HARNESS—For cleaning and polishing harness, buggy tops. Can, 25c; postpaid, 35c.

SOAP—RAPID CLEANER—25c; postpaid, 35c. postpaid, 60c.

SPAVIN CURE—For curable spavins. Quickly reduces all soft swellings as "bog" spavin, blood spavin, swollen joints, inflammation, etc. Bottle, \$1.50. Not mallable. Put up also in paste form, \$2.00.

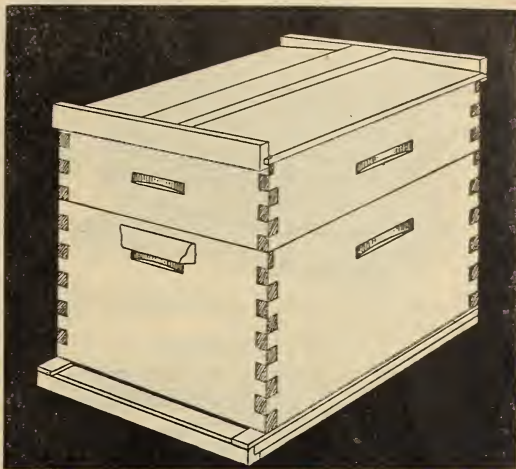
WORM POWDER
—Kills all worms and bots in horses, hogs, sheep, dogs, etc. Package, 50c; mailing weight, 2 lbs.; add postage.

PAYNE'S SCOURS SPECIAL

It is well known that scours in calves is a source of great annoyance and loss. This should be given immediate attention, so that it may be the more easily checked. Paynes' Scours is also used for cows, horses, sheep, pigs and poultry. Full directions on each bottle. \$1.00. Not mallable.



Bee Supplies



DOVETAILED HIVES—The dovetailed hive is now the leading hive, as it contains many of the most desirable features of the various hives for the rapid handling of bees, and is one of the cheapest and best hives manufactured.

DESCRIPTION—The body is $\frac{7}{8}$ inch thick, and is fitted with metal rivets of an improved style. Outside of body is $13\frac{1}{2} \times 20$ inches, and $9\frac{1}{2}$ inches long. The body holds eight Hoffman frames, L size, and a division board. The frames hang below the top edge of the hive, so that there is a bee space above them, but the bottoms of the frames are flush with the bottom edges of hives, the bee space being made by the projection of the sides and can be enlarged or decreased by inverting bottom board. The bottom is 14×21 inches. The cover is made with grooved cleats at each end to prevent warping. The supers are the same size as the body of hive, but only half the depth, so that when two are put together they make a full-depth body. The inside width of the body is $12\frac{1}{2}$ inches, giving room for eight frames and a division board. There are objections to using sections other than $4\frac{1}{2} \times 4\frac{1}{2}$, as they require special sized shipping cases and special sized cartons.

Complete hive consists of 1 body, 1 super, 1 bottom board, 1 cover, 8 Hoffman brood frames, 1 division board, 2 wedges for super, 6 section holders, 6 slatted separators.

No. 1—Pine or cedar Hives, complete, with metal spacers, metal cover and air space under cover. Nailed, \$2.50; K. D., in fives, \$12.50.

No. 2—Pine or cedar Hives, complete with wooden spacers, wooden covers. Nailed, \$2.50; K. D., in fives, \$12.50.

No. 1—Body only: Nailed, \$1.90; K. D., in fives, \$8.50.

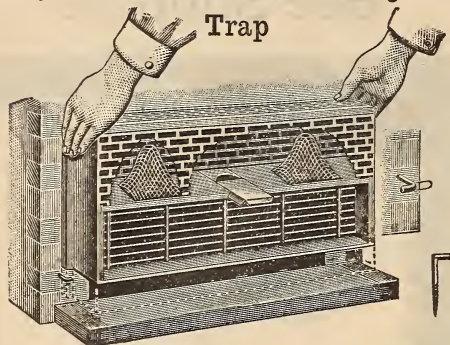
No. 2—Body only: Nailed, \$1.90; K. D., in fives, \$8.50.

Supers—Pine or Cedar: Nailed, \$1.00; K. D., in fives, \$4.50.

Section Holders—Slotted: Each, 3c; 50, \$1.25; 100, \$2.25; weight of 100, 26 lbs.; add postage.

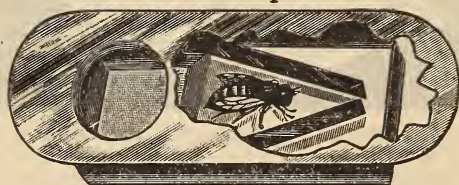
Slotted Separators—Each, 2c; 50, 75c; 100, \$1.25; weight of 100, 8 lbs.; add postage.

Alley's Combined Drone and Queen



A perfect non-swarming arrangement. Weight 1 lb. 75c; postpaid, 80c.

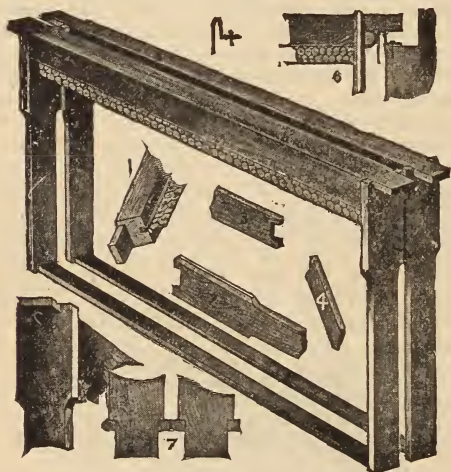
Bee Escapes



Porter

No apiarist can afford to be without bee-escapes. In taking off honey it is the greatest labor saving device that has been introduced in late years. It avoids shaking heavy spurs to get the bees out. 25c; postpaid, 30c.

Brood Frames



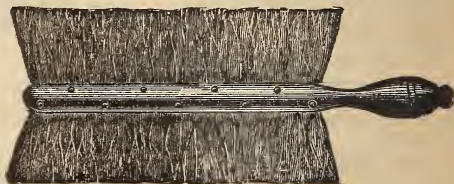
The Hoffman Improved Foundation Fastening Frames are the latest and best brood frames. The top bar is made with a beveled strip which holds the foundation in place, perfectly straight and exactly in center to top bar. It seems to combine in itself nearly all the good features and for a hanging frame it is the best self-spacer we know of. It economizes labor in that it can be handled in groups of three or four; and any particular frame can be removed without thumbing over nearly all the other frames in the hive to get room. Price, 8, 25c; 50, \$1.75; 100, \$3.25; weight, per 100, 28 lbs.; add postage. Metal Spacers only, 100, 60c.

BRUSHES



Cogshalls

This is a sort of whisk broom especially adapted and made for brushing bees. The strands are thinned out and longer, so as to give a soft, pliable sweep to the combs. 40c; postpaid, 45c.



Dixie

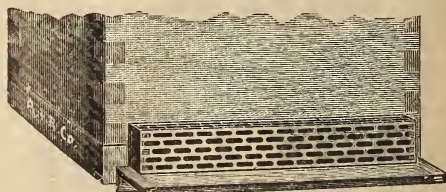
It is a double brush with a strong wood handle, put together with brass nails to avoid rust. The strands are soft and pliable to give an easy, gentle sweep. 40c; postpaid, 45c.

Comb Foundation

	Size of Sheet	lb.	5-lb.	10-lb.
Medium Brood,	7 $\frac{7}{8}$ x16 $\frac{1}{8}$	\$0.75	\$0.74	\$0.73
Light Brood,	7 $\frac{7}{8}$ x16 $\frac{1}{8}$	.80	.79	.78
Thin Super,	3 $\frac{3}{4}$ x15 $\frac{1}{2}$	.85	.84	.83
Extra Thin, Super,	3 $\frac{3}{4}$ x15 $\frac{1}{2}$	.90	.89	.88

Add postage.

Entrance Guards



These are to admit workers, and to exclude drones. After the drones are all out, fix guards over the entrance and at night the drones can be destroyed. 25c; by mail, 30c.

Extractors

Cowan's Rapid Reversible Honey Extractor.



Two-frame Cowan's Reversible for Regulating Frames. Price \$25.00.

If there is any one thing that is more essential to the successful manipulation of bees, aside from a good bee smoker, that one thing is a good honey extractor. If you have but ten colonies of bees it will pay you to have an extractor. Indeed, it would pay for itself in one good season, as oftentimes the brood combs become so filled with honey that the queen is crowded for room, and this honey should be extracted, and could be sold in the extracted form or used in feeding back for completing partly filled sections. Made of best steel.

Feeding

Bees are fed for two purposes: to stimulate brood-rearing or to supply them with necessary stores for winter. For stimulating, a pint to a pint and a half of syrup daily either at the entrance at night or inside the hive should be given until the required amount of brood is reared. In preparing for winter it is better to give the necessary stores all at one feed. The feeder should be filled with syrup by mixing together granulated sugar and water in equal proportions by measure and stirring or heating until thoroughly dissolved.

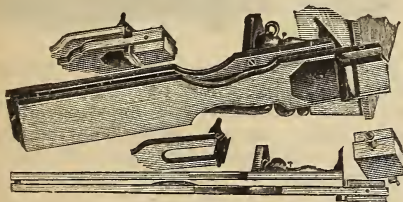


SIMPLICITY

The **Simplicity** may be placed at the entrance at night, over the brood frames, by placing on top of the hive or in the brood-nest itself, if a couple of frames are removed. 15c; by mail, 20c.

MILLERS—Sets on hive like a super. Holds about 25 lbs. of syrup. K. D. 50c; postpaid, 60c.

Foundation Fasteners



DAISY

This is the best for putting starters into sections. Nothing could be more simple or more easily operated than this machine. With this a boy or girl will put starters in about 500 sections per hour. Weight, 6 lbs.; without lamp, \$1.25; with lamp, \$1.50; add postage.



PARKERS

The **Parker Fastener** is a cheap machine for fastening starters. With a little practice it can be made to work very satisfactorily. 35c; by mail, 40c.

Gloves



Gloves for protection of the hands and wrists are almost indispensable.

Rubber, with sleeves: Gents' No. 10, 11, 12 (unable to make quotation at present).

Canvas with sleeves, medium and large, 90c; postpaid, 95c.

Honey Knife



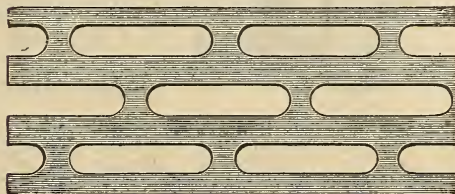
Price, \$1.00; postpaid, \$1.05.

Queen Cages

The cover, to insure prompt delivery, is printed in exact fac simile of cut. On the reverse side are printed directions for introducing Queens....10c..each 3 for 25c.



Queen Excluding Zincs



This is used between the upper and lower stories, to prevent the queen going up above. It is also used in making entrance guards, queen and drone traps, etc.

For 8-frame hive, 12x19, 40c.

For 10-frame hive, 14x20, 45c.

Add 5c for postage.

Owing to the uncertainty of the price of zinc, prices quoted for all items which include zinc in their make-up are not guaranteed and items will only be sent out at prices prevailing when order is filled.

Section Honey Boxes

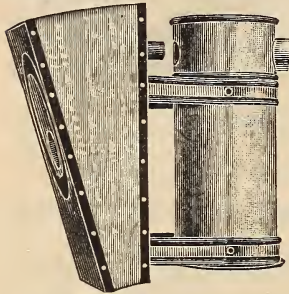
No. 1 SECTIONS—Are made of the choicest white basswood lumber, and all are perfect in finish and free from defects. They are not all snow-white, but vary from that to light cream colors. Price, per 25, 35c; 100, \$1.25; 500, \$5.25; 1000, \$10.00; weight, 13 lbs. per 100; add postage.



No. 2 SECTIONS—Selected from the best grade, sell at a price less than the No. 1. Most of them are equal to No. 1 except in color; some have dark spots, saw marks, or other blemishes which excludes them from the No. 1 grade. Price per 25, 30c; per 100, \$1.15; per 500, \$5.25; per 1000, \$9.50; weight, 13 lbs. per 100; add postage.

Smokers

Every bee keeper needs a smoker. A little smoke puffed in at the entrance of a hive before opening it causes the bees to fill themselves with honey, and with their honey sacs well filled they become docile and their hive can be opened without much risk of the manipulator being stung.



Acme.

Acme—This is undoubtedly the best Cold Blast Smoker on the market. It has no tube in the fire box to clog. It throws a large volume of smoke at RIGHT angles to the fire box without a curved nozzle to lessen the blast. In fact, it is the perfection of smokers.

Price, \$1.00.

Postpaid, \$1.10.

BINGHAM—This is a strong, well-made smoker; does not clog up and will burn any fuel. This smoker resembles the Higginsville very much in appearance. In the Higginsville the nozzle or detachable snout fits over the outside of the smoker, while in the Bingham it fits on the inside. In the Higginsville the nozzle is not attached to the smoker, while in the Bingham the nozzle is attached by means of an open hinge, but can be removed at will.

Price, \$1.25. Weight, 2 lbs.; add postage.



Higginsville

This smoker is, as its name implies, strictly a Higginsville product. It is a hot blast, and has a 3¼-inch fire box, and the nozzle is detachable to admit of filling or cleaning. It has as strong a blast as any smoker made. Price, \$1.00. Weight, 2 lbs. Add postage.

Veils

A great necessity and very cheap. Cotton; silk face. \$1.00; postpaid, \$1.05.

Globe—Has five bars that will keep veil away from head. Price, \$1.50; postpaid, \$1.55.



Globe.

Swarm Catcher

This swarm catcher is the best article of its kind on the market, and it will be found a valuable addition to the appliances of the apiary. No pole. Price, \$1.50. Weight 3 lbs.; add postage.



Manum

Wax Tube Fastener



VAN DEUSEN

For fastening the foundation sheets to thin top-bars there is nothing better than the Van Deusen wax tube. It is simply a brass tube half an inch in diameter, six inches long and tapering. This is filled with hot wax and the point is then slowly drawn along the edge of the foundation in contact with the top-bar, leaving a fine stream of hot wax to cement it. 25c; by mail, 30c.

Wire Imbedder



The latest spur wire imbedder is a most decided improvement over the old one. The teeth are wider and grooved in the direction of the circumference midway across front of teeth, so that the wheel will easily follow the wire. 35c; by mail, \$40c.

Wire



No. 30 Tinned Wire seems to be the most suitable of any for wiring frames.

¼-lb. size Spools No. 30 Tinned Wire, each, 20c; ½ doz., \$1.15; doz., \$2.25.

½-lb. size Spools No. 30 Tinned Wire, each, 30c; ½ doz., \$1.65; doz., \$3.00.

1 lb. size Spools No. 30 Tinned Wire, each, 50c; ½ doz., \$2.75; doz., \$5.25. Add postage.

Postpaid, 20c, 30c, 50c.

NOTICE

Our prices on bee supplies are the lowest figures we can quote at the time this catalogue is given to printer.

WRITE FOR PRICES

NUMBER OF PLANTS TO ACRE

Dist. Apart	Plants	Dist. Apart	Plants	Dist. Apart	Plants	Dist. Apart	Plants
12x 1 in.	522,270	25x18 in.	15,520	36x36 in.	4,840	60x60 in.	1,745
12x 3 in.	174,240	30x 1 in.	209,088	42x12 in.	12,446	8x 1 ft.	5,445
12x12 in.	43,560	30x 6 in.	34,848	42x24 in.	6,223	2x 3 ft.	1,815
16x 1 in.	382,040	30x12 in.	17,424	42x36 in.	4,148	8x 8 ft.	680
18x 1 in.	348,480	30x16 in.	13,068	48x12 in.	10,890	10x 1 ft.	4,356
18x 3 in.	116,160	30x20 in.	10,454	48x18 in.	7,790	10x 6 ft.	726
18x12 in.	29,040	30x24 in.	8,712	48x24 in.	5,445	10x10 ft.	435
18x18 in.	19,360	30x30 in.	6,970	48x30 in.	4,356	12x 1 ft.	3,630
20x 1 in.	313,635	36x 3 in.	58,080	48x36 in.	3,630	12x 5 ft.	736
20x20 in.	15,681	36x12 in.	14,520	48x48 in.	2,723	12x12 ft.	302
24x24 in.	10,890	36x18 in.	9,680	60x36 in.	2,901	16x 1 ft.	2,722
24x 1 in.	261,360	36x24 in.	7,260	60x48 in.	2,178	16x16 ft.	170

QUANTITY OF SEED TO ACRE

Alfalfa	8 to 15 lbs.	Horse Radish Roots	15,000 to 20,000
Alsylke	6 to 15 lbs.	Kale, 1 oz. to 150 feet of drill	1 lb.
Artichoke, 1 oz. to 500 plants	6 oz.	Kale, thousand headed	1 lb.
Asparagus, 1 oz. to 500 plants	1 lb.	Kohl Rabi, 1 oz. to 150 feet of drill	2 lbs.
Barley	60 to 75 lbs.	Kaffir Corn	6 to 8 lbs.
Beans, Dwarf, 1 lb. to 100 feet of drill	50 lbs.	Leek, 1 oz. to 100 feet of drill	4 lbs.
Beans, Tall, 1 lb. to 150 hills	25 lbs.	Lettuce, 1 oz. to 150 feet of drill	3 lbs.
Beet, garden, 1 oz. to 50 feet of drill	5 lbs.	Melon, Musk, 1 oz. to 60 hills	2 to 3 lbs.
Beet, sugar, 1 oz. to 50 feet of drill	5 lbs.	Melon, Water, 1 oz. to 30 hills	3 to 4 lbs.
Beet, Mangel Wurzel, 1 oz. 50 ft. drill	5 lbs.	Millet	30 lbs.
Broccoli, 1 oz. to 2,000 plants	4 oz.	Nasturtium, 1 oz. to 50 feet of drill	15 lbs.
Brussels Sprouts, 1 oz. to 2,000 plants	4 oz.	Oats	75 lbs.
Broom Corn	12 lbs.	Okra, 1 oz. to 100 feet of drill	3 lbs.
Buckwheat	45 lbs.	Onion, 1 oz. to 100 feet of drill	4 to 8 lbs.
Cabbage, 1 oz. to 1,500 plants	½ lb.	Onion, for sets	30 to 40 lbs.
Carrot, 1 oz. to 125 feet of drill	3 lbs.	Onion Sets, 1 lb. to 75 feet of drill	400 lbs.
Cauliflower, 1 oz. to 2,000 plants	3 oz.	Parsley, 1 oz. to 300 feet of drill	3 lbs.
Celery, 1 oz. to 5,000 plants	1 lb.	Parsnip, 1 oz. to 200 feet of drill	6 lbs.
Chicory, 1 oz. to 100 feet of drill	4 lbs.	Peas, Garden, 1 lb. to 50 feet of drill	60 lbs.
Clover, White	6 to 10 lbs.	Peas, Field	100 lbs.
Clover, White, for lawns	25 to 100 lbs.	Pepper, 1 oz. to 100 plants	400 lbs.
Clover, Red and Crimson	12 to 20 lbs.	Potatoes	400 lbs.
Collards, 1 oz. to 2,000 plants	4 oz.	Pumpkin, 1 oz. to 30 hills	3 to 4 lbs.
Corn, Sweet, 1 lb. to 200 hills	8 to 12 lbs.	Radish, 1 oz. to 100 feet of drill	10 lbs.
Corn, field	8 to 12 lbs.	Rape, Dwarf Essex	5 to 10 lbs.
Corn, fodder	8 to 20 lbs.	Rutabagas, 1 oz. to 150 feet of drill	2 lbs.
Corn, Pop	8 to 12 lbs.	Rye	60 to 80 lbs.
Cress, 1 lb. to 100 feet of drill	1 lb.	Salsify, 1 oz. to 50 feet of drill	8 lbs.
Cucumber, 1 oz. to 60 mills	2 to 3 lbs.	Speltz	100 lbs.
Egg Plant, 1 oz. to 2,000 plants	4 oz.	Spinach, 1 oz. to 100 feet of drill	8 lbs.
Endive, 1 oz. to 100 feet of drill	4 oz.	Squash, Summer, 1 oz. to 25 hills	3 lbs.
Flax, for seed, 30 lbs to acre; for fibre	50 lbs.	Squash, Winter, 1 oz. to 12 hills	4 lbs.
Grass, lawn, 1 lb. to 300 sq. feet	80 lbs.	Sugar Cane	10 lbs.
Grass, Kentucky Blue, Canadian Blue	20 lbs.	Sunflower	8 lbs.
Timothy	6 to 12 lbs.	Tobacco, 1 oz. to 10,000 plants	3 oz.
Red Top, in chaff, 60 lbs.; solid	20 to 30 lbs.	Tomato, 1 oz. to 2,000 plants	4 oz.
Fine Grass, Oat Grass, Fescue Grasses	30 lbs.	Turnip, 1 oz. to 150 feet of drill	2 lbs.
Orchard Grass	20 to 30 lbs.	Vetches, Spring	60 to 90 lbs.
Hemp	40 to 50 lbs.	Vetches, Winter	30 to 60 lbs.
		Wheat	60 to 80 lbs.

WEIGHT OF SEED PER BUSHEL

	Lbs. per bu.		Lbs. per bu.		Lbs. per bu.		Lbs. per bu.
Alfalfa Clover	60	English Rye Grass	20	Common Millet	50	Rye	56
Red Clover	60	Oats	32	German Millet	50	Wheat	60
White Clover	60	Barley	48	Hemp	44	Sugar Cans for	
Alsylke Clover	60	Corn	56	Flax	56	Fodder	50
Timothy	45	Orchard Grass	14	Buckwheat	50	Peas, Field	60
Blue Grass	14	Hungarian Millet	48			Bottom Onion Sets	32

USUAL DISTANCE FOR PLANTING

Beans, Bush, drills 2 to 3 feet apart.	Celery, rows 3 to 4 ft 6 inches in row.	Potatoes, 12 to 18 inches by 2½ to 3 feet.
Beans, Pole, 3 to 4 ft each way.	Cherry Trees, 15 to 20 ft. each way.	Pumpkins, 8 to 10 feet each way.
Beets, Early, drills 12 to 18 inches apart.	Cauliflower, 2 by 2 to 2 by 3 feet.	Quince Trees, 15 feet each way.
Beets, Late, drills 2 to 3 feet apart.	Apple Trees, 20 to 30 feet each way.	Radish, drills 10 to 18 inches apart.
Blackberries, erect growing, 6 to 9 by 4 feet.	Asparagus, 3 to 4 by 2 feet.	Raspberries, 6 to 8 by 3 feet.
Blackberries, Mammoth and Himalaya, 8 by 12 feet.	Gooseberries, 5 by 3 feet.	Rhubarb, 2 to 4 feet by 4 feet.
Cabbage, Early, 16 by 30 in.	Melon, Water, 7 to 8 feet each way.	Salsify, drills 18 to 24 inches apart.
Cabbage, Late, 24 by 30 in.	Onions, drills, 14 to 20 inches apart.	Spinach, drills 12 to 18 inches apart.
Carrots, drills 1 to 2 ft. apart.	Parsnips, drills 18 to 36 inches apart.	Squash, Bush, 3 to 4 feet by 4 feet.
Corn, Sweet, 3 to 3½ feet by 9 to 24 inches.	Peach Trees, 18 to 24 feet each way.	Squash, Running, 12 feet each way.
Corn, Field, 3½ to 4 feet each way.	Pear Trees, Standard, 20 to 25 feet each way.	Strawberries, Hills, 36 by 18 inches.
Cucumber, 4 to 5 ft each way.	Peas, drills 2 to 3 feet apart.	Strawberries, Matted Rows, 48 by 12 inches.
Currants, 5 by 3 feet.	Pepper, 15 to 18 inches by 2 to 2½ feet.	Sweet Potatoes, 2 feet by 3 to 4 feet.
Egg Plant, 3 by 5 feet.	Plum Trees, 15 to 20 feet each way.	Tomato, 4 feet by 4 to 5 feet.
Lettuce, drills 18 inches apart.		
Melon, Musk, 5 to 6 feet each way.		

Parcel Post Information

Parcel Post Rates are based on districts and ZONES. The district includes the office where mailed and rural routes therefrom and a rate of 5c for the first pound and 1c for each additional pound is charged between points in this district. ZONE rates increase with the distance. See table.

When You Order From Spokane look for the Zone that corresponds to the distance you are away. Then note where the weight of your package is marked on the table of rates, on the same line under your ZONE will be shown the amount of postage to be added when ordering. We have given the weight of most items mailable by parcel post, and by the aid of the table here shown you can always figure your postage.

A parcel post package may weigh from four ounces to fifty pounds and must not exceed in size 84 inches in length and girth combined. Four ounces or less will be charged for at one cent per ounce or fraction thereof.

In British Columbia and Canada the rate on any parcel up to four ounces is one cent per ounce. All parcels over four ounces take the pound rate, which is twelve cents per pound up to four pounds six ounces.

Fifty pounds is the limit for first and second Zones. Twenty pounds for all other Zones.
TABLE OF PARCEL POST RATES

Table of Parcel Post Rates

Pounds	Local rate	1st and 2nd zone rate 50 to 150 miles	3rd zone rate 150 to 500 miles	4th zone rate 300 to 600 miles	5th zone rate 600 to 1000 miles	6th zone rate 1000 to 1400 miles	7th zone rate 1400 to 1800 miles	8th zone rate all over 1800 miles
1	\$0.05	\$0.05	\$0.05	\$0.07	\$0.08	\$0.09	\$0.11	\$0.12
2	.06	.06	.08	.11	.14	.17	.21	.24
3	.06	.07	.10	.15	.20	.25	.31	.36
4	.07	.08	.12	.19	.26	.33	.41	.48
5	.07	.09	.14	.23	.32	.41	.51	.60
6	.08	.10	.16	.27	.38	.49	.61	.72
7	.08	.11	.18	.31	.44	.57	.71	.84
8	.09	.12	.20	.35	.50	.65	.81	.96
9	.09	.13	.22	.39	.56	.73	.91	1.08
10	.10	.14	.24	.43	.62	.81	1.01	1.20
11	.10	.15	.26	.47	.68	.89	1.11	1.32
12	.11	.16	.28	.51	.74	.97	1.21	1.44
13	.11	.17	.30	.55	.80	1.05	1.31	1.56
14	.12	.18	.32	.59	.86	1.13	1.41	1.68
15	.12	.19	.34	.63	.92	1.21	1.51	1.80
16	.13	.20	.36	.67	.98	1.29	1.61	1.92
17	.13	.21	.38	.71	1.04	1.37	1.71	2.04
18	.14	.22	.40	.75	1.10	1.45	1.81	2.16
19	.14	.23	.42	.79	1.16	1.53	1.91	2.28
20	.15	.24	.44	.83	1.22	1.61	2.01	2.40

UP TO FIFTY POUNDS

The weights from 21 to 50 pounds and rates in the first, second and local zones are as follows:

		1st and 2nd Zone Rate				1st and 2nd Zone Rate	
		Local Rate	Zone Rate			Local Rate	Zone Rate
21 pounds	.....	\$0.15	\$0.25	36 pounds	.....	\$0.23	\$0.40
22 pounds	.....	.16	.26	37 pounds	.....	.23	.41
23 pounds	.....	.16	.27	38 pounds	.....	.24	.42
24 pounds	.....	.17	.28	39 pounds	.....	.24	.43
25 pounds	.....	.17	.29	40 pounds	.....	.25	.44
26 pounds	.....	.18	.30	41 pounds	.....	.25	.45
27 pounds	.....	.18	.31	42 pounds	.....	.26	.46
28 pounds	.....	.19	.32	43 pounds	.....	.26	.47
29 pounds	.....	.19	.33	44 pounds	.....	.27	.48
30 pounds	.....	.20	.34	45 pounds	.....	.27	.49
31 pounds	.....	.20	.35	46 pounds	.....	.28	.50
32 pounds	.....	.21	.36	47 pounds	.....	.28	.51
33 pounds	.....	.21	.37	48 pounds	.....	.29	.52
34 pounds	.....	.22	.38	49 pounds	.....	.29	.53
35 pounds	.....	.22	.39	50 pounds	.....	.30	.54

THE INLAND SEED CO. SPOKANE, WASH.

THE INLAND SEED CO. gives no warranty, express or implied, as to description, purity, productiveness or any other matter of any seeds or bulbs they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are at once to be returned.

Express or Freight Office Date, 19..

[illegible]

In making your order, please give the price, to avoid delay and error.

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Beans	1-4-5	Grasses	48-49	Poultry Remedies	93
Bee Supplies	105-108	Herbs	27	Powder Blowers	64
Beeswax	77	Hoes	58	Poultry Pepper	93
Bird Seed	94	Hook, Grass	77	Pruners	73
Bird Specialties	94	Hose	65	Pumps	61-62
Blue Stone	67	Hovers	81-82	Pump Extras	64-65
Bone Cutters	88-89	Hover Extras	82	Pumpkins	23
Brooders	80-81	Hygrometer	84	Punches, Poultry	85
Brooder Extras	81	Incubators	78-80	Radishes	23-24
Brooder Fixtures	80	Incubator Extras	83	Raffia	77
Brussels Sprouts	7	Inoculation	46	Rakes	58
Buckwheat	51	Kale	14	Rape	50
Bulbs	39-42	Kohl Rabi	14	Regulators	85
Cabbage	7-8-9	Knives	76	Rhubarb	24
Cane Sugar	52	Ladders	72	Roofing	91
Carrots	9-10	Lamps	84	Root Cutters	88
Cauliflower	10	Lamp Extras	84	Roots, Vegetables	44
Celery	11	Lawn Grass	49	Salsify	24
Celeriac	11	Leg Bands	85	Saws	76-77
Clover Cutters	89	Leek	15	Seeders, Garden	54-55
Clovers	47-48	Lentils	51	Seeders, Grass	60
Copperas	93	Lettuce	15-16	Shell Boxes	87
Corn	11-12-13	Lid Press	73	Shipping Coops	86
Corn, Broom	51	Melons, Musk	16-17	Shipping Boxes, Day	
Corn, Pop	11	Melons, Water	18	Old Chicks	85
Corn, Egyptian	51	Millets	49-50	Shears, Hedge	70
Corn, Kaffir	51	Mills, Apache	89	Spray Calendar	68
Corn Knives	59	Mills, Black Hawk	89	Sprayers	63-64
Corn Sheller	90	Mills, Wilson	89	Sprayer Extras	64-65
Cress	13	Milo Maize	51	Spray Materials.....	65-67-71
Cucumbers	13-14	Moisture Device	83	Sprayometer	67
Cultivators	54-58	Mushroom Spawn	16	Spinach	25
Dairy Supplies	95-102	Mustard	19	Squash	25
Disinfectants	93	Nest Box, Pedigree	84	Squirrel Exterminators.....	60
Dog Biscuit	94	Nest Eggs	85	Squirrel Poison	71
Dog Remedies	94	Nests, Wire	85	Stock Remedies	104-105
Drinking Fountains.....	87	Okra	19	Stock Tonics	104
Egg Boxes	86	Oil, Incubator	81	Sunflower	52
Egg Carriers	86	Onions	19-20	Thermometers, Brooder.....	83
Egg Cases	86	Onion Sets	20	Thermometers, Green	
Egg Plant	14	Paper Holder	73	House	78
Egg Tester	83	Parsley	20	Thermometers, Hot Bed.....	78
Egg Trays, Pedigree.....	83	Parsnips	21	Thermometers, Incubator.....	83
Endive	14	Peanuts	21	Thermostat	85
Feed Hoppers	86	Peas, Cow	50	Tobacco Dust	93
Feed, Poultry	91-92	Peas, Field	50	Tomatoes	26
Feed, Stock	103-104	Peas, Sugar	21-22	Tree Labels	77
Felts	83	Peas, Sweet	35-38	Tree Tanglefoot	72
Feterita	51	Peppers	22	Trowels	58
Fertilizers	53-54	Plants	43-44	Turnips	26-27
Fish Food	94	Planters, Corn	58-59	Vetches	51
Flax Seed	51	Planters, Potato	59	Vine Seeds	38
Flowers	28-35			Vine Roots	38-39
Formaldehyde	71			Weeders	58

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